GZA
GeoEnvironmental, Inc.

Engineers and Scientists

April 28, 2009
File No. 32795.31

Ms. Joan Taylor
Senior Environmental Scientist
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908

Re: First Annual Interim Compliance Monitoring Report
(January 2008 through January 2009)
Charbert, Division of NFA
Richmond, Rhode Island
RIDEM Case # 99-037

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Dear Ms. Taylor:

This letter with attachments serves as the first annual Interim Compliance Monitoring Report for the Charbert Facility located at 299 Church Street in Richmond (Alton), Rhode Island. The work was conducted in compliance with the December 18, 2007 Order of Approval and the October 15, 2007 *Remedial Action Work Plan (RAWP)* that was prepared to address the applicable requirements of Section 9.00 of the RIDEM's Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, (DEM-DSR01-93 Remediation Regulations). It was prepared by GZA GeoEnvironmental, Inc., on behalf of our client Charbert, a Division of NFA.

A Site locus plan is provided on Figure 1, Figure 2 is a detailed *Site Plan and Monitoring Well Locations Plan*, and the *Air Sparge and Soil Vapor Extraction Well Locations* are shown on Figure 3. The findings and conclusions presented in this report are subject to the Limitations provided in Appendix A.

1.00 BACKGROUND

The air sparge and soil vapor extraction remedial system at the Charbert Manufacturing Facility in Alton, Rhode Island was designed and installed by GZA between December of 2007 and January of 2008. The system was issued an Order of Approval from the Rhode Island Department of Environmental Management on December 18, 2007 and began full scale operation on January 24, 2008.

The air sparge system (AS), is designed to inject air into the soil aquifer and groundwater using a grid pattern of 1-inch diameter sparge wells. The purpose of the air injection is to introduce oxygen to enhance bioremediation and expedite the volatization of contaminants. The soil vapor extraction system (SVE), uses a blower to apply vacuum to a series of 2-inch wells installed primarily above the groundwater table. The system collects the vapors from the natural breakdown and volatization of the contaminants generated by the air sparge system and also helps circulate oxygen rich air through unsaturated contaminated soils stimulating bioremediation of contaminants (bioventing). The air collected by the SVE system is then filtered through activated carbon to collect the contaminants. The treated air is than discharged to the atmosphere.

The remedial system consists of an interior AS/SVE system located under the concrete floor in the approximate center of the mill building and an exterior AS/SVE system that is located under the rear maintenance area parking lot on the west side of the mill building. The system controls, SVE blowers, and carbon filters are located in the west end of the facility, near the boiler room. The air is supplied by a central air compressor located in the eastern side of the mill building (see Figure 3).

The interior AS system consists of 16 air injection wells (AS-1 through AS-16) that inject air approximately 25 to 30 feet below the floor of the mill. At this depth the air is injected approximately 19 to 24 feet below the groundwater surface. The interior SVE system consists of 16 soil vapor extraction wells (SVE-1 through SVE-16) and 7 sub-slab vent wells (SSVW-1 through SSVW-7). The SVE wells are collecting vapors from 2 to 17 feet below the mill floor. The sub-slab vent wells are located around the perimeter of the interior system to remove any vapors that may collect under the concrete floors. The table below lists the interior remedial system specifics:

Interior Remedial System

Air Supply: Central Rotary Screw Compressor (50 Hp)	
Blower: 5 Horse Power	
Total Air Volume Injected:	24 SCFM
Total Air Volume Removed:	163 SCFM
Average AS Well Flow, :	1.5 SCFM
Average SVE Well Flow:	6.8 SCFM
Estimated Contaminant Removal:	93 lbs/year*

* Excludes removal by biologic action

SCFM = Standard Cubic Feet per Minute

The exterior AS system consists of 14 air injection wells (AS-17 through AS-30) that inject air approximately 25 to 30 feet below the ground surface. At this depth the air is injected approximately 20 to 25 feet below the groundwater surface. To reduce groundwater born contaminant concentrations discharging to the Wood River, a line of 5-sparge wells (i.e., a sparge curtain) are located along the river bank between the river and the contaminated area. The SVE system consists of 14 soil vapor extraction trenches (SVE-17 through SVE-30) that are collecting vapors 2 feet below the ground surface. The soil vapor collection trenches are installed similar to septic system leachfield piping. The table below lists the exterior remedial system specifics:

Exterior Remedial System

Air Supply: Central Rotary Screw Compressor (50 Hp)	
Blower: 1 Horse Power	
Total Air Volume Injected	24 SCFM
Total Air Volume Removed:	79 SCFM
Average AS Well Flow:	1.7 SCFM
Average SVE Well Flow:	5.8 SCFM
Estimated Contaminant Removal:	55 lbs/year*

*Excludes removal by biologic action

SCFM = Standard Cubic Feet per Minute

The remedial system operations are monitored weekly by Charbert personnel. GZA personnel conduct monthly performance monitoring for the soil vapor extraction/air sparge system. The air flow and vacuum readings are taken monthly at each well and the exhaust air flow rates and contaminant concentrations are evaluated with field equipment. Data collected at each SVE well includes: total volatile organic compounds (by volume), carbon dioxide (percent by volume), methane (percent by volume), lower explosive limit (LEL) and oxygen level (percent by volume).

To monitor the effectiveness of the remedial system an Interim Compliance Monitoring Plan, as approved by RIDEM in December of 2007, is ongoing and was started with a baseline round of groundwater samples collected from 14 groundwater monitoring wells, RIZ-1, RIZ-5, RIZ-6, RIZ-7, RIZ-13, GZ-3, GZ-7, GZ-19 to 23, GP-26 and GP-28, in January of 2008. On a quarterly basis groundwater samples are collected from 12 wells located around the perimeter of the contaminated area and samples are analyzed for volatile organic compounds (VOCs). Quarterly sampling and analysis consists of six field screening parameters (temperature, pH, oxidation/reduction potential (ORP), specific conductivity, turbidity, and dissolved oxygen) and laboratory analysis for volatile organic compounds (VOCs) via EPA Method 8260B. On a yearly basis groundwater samples are also collected from two additional perimeter background wells RIZ-1 and RIZ-6. Annual sample analysis includes the six field parameters, VOCs and total petroleum hydrocarbon analysis, via EPA 8100M from the 9 shallow overburden wells (15 foot deep +/-) RIZ-1, RIZ-5, RIZ-6, RIZ-7, RIZ-13, GZ-21, GZ-23, GP-26 and GP-28.

2.00 MONITORING AND MAINTENANCE PROGRAM

The groundwater quality and SVE/AS system monitoring program that was performed at the Site between January 2008 and January 2009 is described in this section. In addition, the activities undertaken to maintain system performance are reviewed. During this reporting period, no equipment maintenance other than system tuning was required for the AS or SVE systems.

2.10 QUARTERLY GROUNDWATER MONITORING

The compliance groundwater monitoring program consists of 14 wells, RIZ-1, RIZ-5, RIZ-6, RIZ-7, RIZ-13, GZ-3, GZ-7, GZ-19 to 23, GP-26 and GP-28. Monitoring locations were selected based on our review of historical groundwater sampling results, piezometric monitoring of the Site and adjacent area, and anticipated changes to the groundwater flow directions following the mill closure in March of 2008. The groundwater monitoring locations are shown on Figure 2.

Two perimeter background wells, RIZ-1 and RIZ-6, were sampled prior to starting the SVE/AS system and are sampled on an annual frequency. The twelve (12) remaining wells are sampled on a quarterly frequency that began prior to SVE/AS system start-up, and will continue for a minimum of 8 quarters concurrent with AS/SVE system operation. As described above, groundwater was sampled and analyzed on a quarterly to annual basis (January, April, July, and October) in accordance with the December 18, 2007 Order of Approval for the SVE/AS system as issued by RIDEM. After the first 8 quarters it may be appropriate to reduce the sampling frequency to semi-annual corresponding to periods of seasonal high and low groundwater (e.g., March/April and September/October). Seasonal groundwater levels will be evaluated prior to choosing a time (date) in which these samples will be collected.

As described above, sample analysis consists of six field screening parameters (temperature, pH, oxidation/reduction potential (ORP), specific conductivity, turbidity, and dissolved oxygen) and volatile organic compounds (VOCs) via EPA Method 8260B. In the shallow overburden wells (15 foot deep +/-), samples are also collected and analyzed for total petroleum hydrocarbon analysis, via EPA 8100M, on an annual basis.

Groundwater sampling was performed in general accordance with EPA's July 30, 1996 *Low Stress (low flow) Purging and Sampling Procedure* (Low Flow SOP). Low flow sampling equipment (exclusive of tubing which is dedicated) is decontaminated prior to use on-site and between each location following EPA's recommended protocols. Water quality monitoring for stabilization was conducted utilizing a Horiba multi-meter (or equivalent) in a flow through cell. The Horiba records temperature, pH, specific conductance, dissolved oxygen, and turbidity. The ORP reading were taken with an Oakton ORPTestr 10 water quarterly meter.
Groundwater samples were transported, under chain-of-custody procedures, to the GZA Environmental Chemistry Laboratory in Hopkinton, Massachusetts for chemical analysis. Laboratory data sheets for the January 2009 sampling event are provided in Appendix B. The January, April, July, and October 2008 and January 2009 results are summarized in Tables 1 through 14.

2.20 SOIL VAPOR EXTRACTION SYSTEM

GZA personnel visited the site on approximately a monthly basis to monitor the SVE system. During each visit, the following data were collected at each of the 30 soil vapor extraction (SVE) wells and 7 Sub-Slab Vent Wells (SSVW): (1) air flow rates; (2) vacuum response in inches of water column (IW); (3) total volatile organic compound (TVOC) reading, and (4) O_2, CO_2 and Lower Explosive Limit (LEL) readings. TVOC measurements were performed using a PID equipped with a 10.6 eV lamp. O_2, CO_2 and LEL measurements were collected utilizing a LandTech infrared gas meter. Tables 15 through 51 show the monitoring results for vent wells, SVE-1 through SVE-30 and SSVW-1 through SSVW-7.

Combined effluent samples of soil vapor to the GAC units were also monitored on a monthly basis for TVOCs with a PID as shown on Tables 52 and 53.

2.30 AIR SPARGE SYSTEM

GZA personnel visited the site on an approximately monthly basis to monitor the air sparge system (concurrent with SVE system monitoring). The following field monitoring parameters were measured at each of the thirty sparge points (AS-1 through AS-30): (1) Air sparging flows; and (2) air pressures. Since the startup of the system the air pressure has been increased to provide a flow of greater than 2 cubic feet per minute. To maintain this flow the air pressure was again increased to compensate for an increase in the groundwater table elevation. Refer to Tables 54 and 55 for field screening measurements at locations AS-1 through AS-30, respectively.

In addition, during each site visit the following were measured at the combined air extraction line for the in-well air sparge system: (1) air flow rates (injection and recovery); (2) vacuum response in inches of water column (IW); (3) TVOC PID readings, and (4) O_2, CO_2 and LEL readings.

The Soil Vapor Extraction and Air Sparge Operations Log have been included as Table 56.

3.00 RESULTS

The results of the monitoring and maintenance work described above are reviewed below with respect to:

- Quarterly groundwater monitoring results;
- SVE TVOC PID, O_2 and CO_2 Levels;
- SVE flows and radius of influence;
- Air sparging pressures and flow response;
- Oxygen introduction and consumption, carbon dioxide generation; estimated rates of hydrocarbon removal via biodegradation and physical venting to the GAC unit; and
- GAC unit maintenance.

3.10 QUARTERLY GROUNDWATER MONITORING RESULTS

The following subsections discuss the results of the various monitoring and remedial programs that were on going at the Site.

Fourth Quarter Monitoring Results

The January 5 and 6, 2009 groundwater results have been compared to the applicable groundwater standards for Rhode Island and there are contaminants that exceed the RIDEM Preventative Action Limits (PALs) and RIDEM GA Groundwater Standards for VOCs in 8 of the 14 monitoring wells. Four contaminants exceeded the GA Groundwater Standard: vinyl chloride, cis-1,2-dichloroethene, trichloroethene (TCE) and tetrachloroethene (PCE). One location exceeded the RIDEM PALs for vinyl chloride. Two (RIZ-1 and RIZ-6) of the five remaining monitoring wells had no detectable levels of VOCs. Three wells (GP-23, RIZ-5 and GZ-7) had detectable concentrations, but not above the GA Groundwater Objectives or PALs. For reference, all previous analytical testing results for the fourteen wells tested on January 5 and 6, 2009 are included in Tables 1 through 14.

The RIDEM GA Groundwater Objective for vinyl chloride is 2 µg/L. The samples from GZ-21, GP-28, RIZ-7, GZ-20, GP-26 and GZ-3 had levels of 2.3, 140, 130, 35, 96 and 8.1 µg/L, respectively. The GA Objective for cis-1,2-dichloroethene is 70 µg/L. The samples from GP-28, RIZ-7, GZ-20, GP-26 and GZ-3 had levels of 940, 100, 500, 1,200 and 110 µg/L, respectively. Trichloroethene has a GA objective of 5 µg/L. Monitoring well locations GP-28, GZ-20, GP-26 and GZ-3 were all in excess of the regulatory limit with concentrations ranging from 81 to 1,600 µg/L. Tetrachloroethene has a GA groundwater objective of 5 µg/L. Monitoring well locations GZ-21, GZ-22, GP-28, GZ-19, GZ-20, GP-26 and GZ-3 were in excess of the regulatory limit with concentrations of 6.2, 28, 2,900, 8,400, 880, 2,100 and 160 µg/L, respectively.

The detected levels of each of these compounds are within historical ranges of analytical data collected previously from the Site. A comparison of baseline results with the fourth quarter results shows that there have been changes in the distribution of contaminant concentrations within the identified zone of contamination. There are also changes in the ratio of parent to daughter products (i.e., PCE concentrations relative to TCE, 1,2-DCE and VC). The observed changes are not unexpected given the level of disturbance to the aquifer introduced by the sparging system. The

decrease in chlorinated daughter products is also consistent with a decrease in the level of reductive dechlorination resulting from the oxygen introduced by the sparging system.

The quarterly monitoring program will be continued for 4 more quarters through December 2009. At that time, an evaluation will be made of the future sampling frequency potentially moving to semi-annual corresponding to periods of seasonal high and low groundwater (e.g., March and September). Seasonal groundwater levels will be evaluated prior to choosing a time (date) at which these samples will be collected.

3.20 SVE TVOC, O_2 AND CO_2 LEVELS

As shown in the operating logs (Tables 15 through 51), oxygen (O_2) levels in the unsaturated soil zone are being maintained at sufficient levels to support aerobic biological activity via the operation of the soil vapor extraction system. Measured O_2 levels in samples of the vapor extracted since the commissioning of the SVE systems in January 2008 have ranged from 16.2 to 20.9% for the interior SVE system and 11.3 to 20.9% for the exterior SVE system. Theoretically, soil gas oxygen levels as small as 4% are deemed sufficient to achieve an aerobic environment within the water film on soil particles (bacteria exist primarily within this water film on soil particles)[1]. Thus, the aerobic environment established by the vent system will stimulate existing bacteria within the unsaturated zone to efficiently biodegrade hydrocarbon contamination. O_2 levels in the unsaturated soil zone are at levels sufficient to support aerobic biological activity via the operation of the soil vapor extraction system.

Oxygen introduced by the biovent system to the soil is assumed to undergo transformation to carbon dioxide (CO_2) through biodegradation processes. The difference between ambient oxygen and carbon dioxide levels and measured levels is assumed to be approximately equal to the amount of O_2 consumption and CO_2 generation during soil venting.

For the interior SVE system, the average O_2 depletion and CO_2 generation for the vent wells has been observed at approximately 0.61% and 0.15%, respectively. For the exterior SVE system, the average O_2 depletion and CO_2 generation for the vent wells has been observed at approximately 1.19% and 0.32%, respectively. The observed percentages of O_2 consumed and CO_2 generated over time at the individual SVE wells are summarized in Appendix C. The data collected for the individual vent wells are shown on Tables 15 through 51.

3.30 SVE FLOWS & RADIUS OF INFLUENCE

Since the system startup in January 2008, the average vacuum response at each vent well has ranged from 0.2 to 6.4 IW for the interior SVE system and 0.7 to 3.2 IW for the exterior SVE system, with an average combined vacuum of 30.0 IW applied at the interior SVE system and an average combined vacuum of 14.7 IW applied at the exterior SVE system. The results for the combined average flow rate are approximately 163 scfm for the interior SVE system and approximately 79 scfm for the exterior SVE system. Tables 15 through 51 summarize soil vapor extraction performance in the individual vent wells. Tables 52 and 53, respectively, summarize the combined interior and exterior soil vapor extraction monitoring data.

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[1]Dineen, D., et. al., 1992, "In-Situ Biodegradation of Petroleum Hydrocarbons in Unsaturated Soils". Chapter 14 of Text: "Contaminated Soils", edited by P. Kostecki and E.J. Calabrese, Jr. Lewis Publishers, Chelsea, MI.

At the applied vacuums, we believe the operation of the vent wells over the past twelve months achieved the desired radius of influence. During a pilot test in April/May 2007, at an applied vacuum of as low as 0.01 IW, we estimated for wells GP-101 and GP-112 that a minimum radius of influence of approximately 20 feet per vent well was achievable. Therefore, at the current applied vacuums, we would expect the radius of influence of the wells to attain a minimum of this 20 foot radius of influence.

3.40 AIR SPARGE SYSTEM

The air sparge system consists of 16 interior sparge wells (AS-1 thought AS-16) and 14 exterior sparge wells (AS-17 through AS-30). At present compressed air is delivered to 16 interior sparge wells at an average combined rate of approximately 24 scfm and to 14 exterior sparge wells at an average combined rate of approximately 24 scfm. Air is being injected using an existing air compressor system at the facility. The injected air flow readings for individual wells for the interior and exterior air sparge systems are shown on Tables 54 and 55, respectively.

Each sparge well has an approximately 5-foot long screened section set with the top of the well screen approximately 15 to 20-feet below the top of the water table; screened section at depth of approximately 25 to 30-feet below ground surface. The sparge wells are assumed to have a radius of influence of less than 10 feet. The radius of influence of the SVE wells are believed to be sufficient to recover VOCs in vapors being generated from the groundwater sparging systems.

3.50 HYDROCARBON REMOVAL RATES

Since the start up of the AS/SVE system in January 2008, it is estimated that the interior SVE system has removed a total of approximately 6,589 pounds, or 488 gallons, of hydrocarbons and the exterior SVE system has removed a total of approximately 5,937 pounds, or 440 gallons, of hydrocarbons. The combined removal of hydrocarbons by the direct venting of soil vapor and biological degradation is 12,526 pounds or 928 gallons. These calculations are included in Appendix C.

During this timeframe, it is estimated that approximately 93 and 55 pounds of hydrocarbons were removed by soil vapor extraction and 6,496 and 5,882 pounds have been remediated by biodegradation from the interior and exterior SVE systems, respectively. These values were estimated using average combined venting flow rates and average influent TVOC and CO_2 readings. These values should be viewed as approximations, since TVOC PID readings are only relative indicators of hydrocarbon levels and the biodegradation estimates are subject to certain assumptions (discussed below).

Aerobic bioactivity within the remedial areas is estimated to have resulted in the total biodegradation of approximately 12,378 pounds of hydrocarbons since the system start-up in January of 2008 (12 months). During the current reporting period, the average CO_2 generation for the vent wells has been observed at approximately 0.09 and 0.25% from the interior and exterior SVE systems, respectively. Under the assumption that there is no significant degradation of natural organics in the subsurface at the site, the amount of hydrocarbons biodegraded can be estimated by assuming that 3.1 pounds of CO_2 is generated when the 1 lb. of hydrocarbon is mineralized, but that approximately half of the CO_2 generated is utilized in growth of the bacterial mass. Therefore, for each pound of hydrocarbon consumed, the measured CO_2 increase in soil gas would only be approximately 1.6 pounds. Given the measured rates of soil vapor extraction and the observed increase in carbon dioxide levels from atmospheric levels, it is estimated that approximately 12,378

pounds of total hydrocarbons were degraded during this reporting period at the site, as summarized in the calculations in Appendix C.

3.60 GAC UNIT MAINTENANCE

The two interior and exterior vessels (600 pounds combined) of granular activated carbon (GAC) did not require maintenance during the past 12 months.

4.00 PASSIVE PETROLEUM RECOVERY TRENCH

As part of the Lagoon 5 remedial activities, an interceptor trench with product recovery wells was installed parallel to the eastern channel of Old Lagoon 5 on the west side of the chain-link fence. The recovery trench configuration is discussed in detail in GZA's October 15, 2007 *Remedial Action Work Plan*. The objective of the trench is to minimize the potential for further migration of petroleum products to former Lagoon 5. This trench system was installed in January of 2009 and the monitoring program was proposed in the August 22, 2008 *Revised Remedial Work Plan*. Product recovery operations will be incorporated into the monthly air sparge and soil vapor extraction monitoring program. The monitoring results will be summarized in a table and included as an appendix to the Interim Compliance Monitor Program quarterly and yearly reports. The passive petroleum recovery system will consists of an ORS Filter Bucket, 4-Inch GeoSorb sock or similar equipment to be installed in each recovery well based on our evaluation of the volume and viscosity of the oil present in the wells. At the conclusion of the work associated with the trench, the chain link fence around Lagoon 5 was restored.

4.10 Passive Product Recovery Operations

The following field monitoring will be performed monthly at each of the oil recovery wells:

1. Depth to Oil/Water from ground surface;
2. Oil thickness;
3. Status of passive recovery equipment
4. Volume of oil recovered.

Recovered petroleum will be stored inside the facility in 55-gallon drum containers with appropriate secondary containment. The drum fluid level will be checked each month, and when full, the drums will be transported to a licensed off-site disposal facility under manifest. Recovered oil shall be managed in accordance with Rule 15.00 of the RIDEM Regulations for Hazardous Waste Management. Copies of all disposal manifests will be maintained with the site remediation operating logs.

5.00 ADDITIONAL ENVIRONMENTAL MONITORING

To provide RIDEM with a comprehensive assessment of overburden water quality in the interim period until the bedrock aquifer assessment has been completed, Charbert is also providing data from three additional monitoring programs with quarterly and yearly ICMP reports. These additional

monitoring programs include: (1) the residential water treatment performance monitoring at 14, 16 and 18 River Street: (2) the quarterly underground injection and control (UIC) monitoring and reporting: and (3) the monitoring of five wells located along the perimeter of the Charbert property adjacent to River Street.

Each program and the current monitoring results are briefly described below.

5.10 RESIDENTIAL DRINKING WATER TREATMENT SYSTEMS

In January of 2005, Charbert installed point-of-use water treatment systems at 14, 16 and 18 River Street as shown on Figure 2. The systems consist of four main components:

1) Water softening and iron removal;
2) Particulate filtration;
3) Carbon absorption to remove organic contaminants and
4) Ultraviolet disinfection to address bacteria either from the aquifer or from the treatment system components (e.g., carbon, ion exchange media, etc.).

Current quarterly post-treatment system monitoring consists of analysis for VOCs, VOC tentatively identified compounds (TICs), SVOCs, SVOC TICs, and total coliform bacteria. On a yearly basis the analysis also includes VOC analysis, of the raw well water at each residence. On February 2, 2009, GZA collected tap water and raw well water samples from each residence. For reference all previous analytical testing results for the three residential wells have been included in Appendix D.

The February 2, 2009 raw water analysis detected one VOC at 14 River Street, two VOCs and two VOC TICs at 16 River Street, and one VOC TIC in the sampler from 18 River Street. Trichloroethene was detected at 0.87 µg/L in the sample from 14 River Street. The analysis of the sample collected at 16 River Street contained 1,1,1-trichloroethane and cis-1,2-dichloroethene, which were detected at 1.5 and 0.66 µg/L, respectively, and two unknown TICs, which were detected at 1.4 and 1.1 µg/L. No target VOCs were detected in the sample collected at 18 River Street; however, one VOC TIC was detected. The tentatively identified compound, 1,1-diflouroethane, was detected at an estimated concentration of 1.0 µg/L. This compound was also detected in the trip blank at an estimated concentration of 1.2 µg/L and thus may have been introduced to the samples during transport or in the laboratory.

In general, the results from each residence show a steady decline in the number of detected analytes in each sample and a decrease in the concentration of the detected analytes. Charbert will continue to maintain these potable water treatment systems on the groundwater supply wells until the combination of the ongoing remedial actions (lagoon closure AS/SVE and relocation at the former Charbert septic system leaching field) restores groundwater in the area of the supply wells to GA/GAA quality.

5.20 UNDERGROUND INJECTION AND CONTROL REPORT

The quarterly groundwater sampling and analysis conducted in accordance with the *UIC Order of Approval # 1108* for the Site is included as part of the quarterly and annual ICMP Reports. The fourth Quarterly UIC Monitoring Report of 2008 was prepared by GZA GeoEnvironmental, Inc., submitted to RIDEM on January 2, 2009, and is included in this report as Attachment E. The report includes the following information:

- Analytical test results from the six monitoring wells (designated MW-1A, MW-2A, MW-3, MW-4A, MW-5B and MW-6), which were analyzed for total and dissolved chromium, volatile organic compounds (VOCs), the semi-volatile organic compound bis(2-Ethylhexyl) phthalate and total petroleum hydrocarbons (TPH). The detected analytes have been summarized and compared to RIDEM's GA Groundwater Objectives and Groundwater Quality Preventative Action Limits (PALs).
- Disposal system usage and monitoring well maintenance activities summary.
- Static groundwater elevation measurements and field screening logs for each monitoring well.
- Laboratory Certificates of Analysis.

5.30 PERIMETER WELL MONITORING

In accordance with discussions during the conference call on April 23, 2008 between RIDEM and Charbert, it was agreed that, as part of the environmental monitoring, additional groundwater samples would be collected from perimeter wells located between the Charbert facility and nearby private wells and analyzed for VOCs (see Figure 2 for monitoring well locations). Perimeter monitoring wells include RIZ-1, GP-22, RIZ-21, GZ-1 and RIZ-14. The fourth round of groundwater sampling from the perimeter wells was conducted January 6, 2009. The complete report contains the results of the monitoring well sampling and analysis and has been included as Attachment F.

We trust that this information fulfills your present needs. If you have any questions please call Stephen Andrus or Edward Summerly at (401) 421-4140.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Stephen Andrus, E.I.T.
Assistant Project Manager

Albert Flori
Project Reviewer

Edward A. Summerly, P.G.
Principal

SMA/EAS:lal

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Attachments: Tables 1 to 14: Quarterly ICMP
Tables 15 to 37: Summary of Interior SVE Monitoring
Tables 38 to 51: Summary of Exterior SVE Monitoring
Table 52: Summary of Combined Interior SVE Monitoring
Table 53: Summary of Combined Exterior SVE Monitoring
Table 54: Summary of Interior Air Sparge Monitoring
Table 55: Summary of Exterior Air Sparge Monitoring
Table 56: SVE & AS Operations Log
Figure 1: Locus Plan
Figure 2: Site and Monitoring Well Location Plan
Figure 3: Air Sparge and Soil Vapor Extraction Well Locations
Appendix A – Limitations
Appendix B – Laboratory Certificates of Analysis
Appendix C – Hydrocarbon Degradation Calculations
Appendix D – Residential Wells Analytical Summary
Appendix E – Fourth Quarter 2008 UIC Report
Appendix F – Perimeter Well Monitoring Results Memorandum

TABLES

TABLE 1
GZ-21
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GZ-21 Shallow Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	<	1.0	**8.4**	1.0	**2.8**	1.0	**3.4**	1.0	**2.3**	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	**7.8**	1.0	**10.0**	1.0	**7.7**	1.0	**4.7**	1.0	**1.7**	1.0
	1,1,1-Trichloroethene	200	100	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	**3.5**	1.0	**1.7**	1.0	**2.3**	1.0	**2.7**	1.0	**1.7**	1.0
	Tetrachloroethene	5	2.5	ug/L	**7.2**	1.0	**2.4**	1.0	**7.6**	1.0	**6.1**	1.0	**6.2**	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	<	200	NT		NT		NT		<	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.7		6.2		5.4	
	CONDUCTIVITY	NS	NS	mS/cm	0.337		0.660		0.480		0.378		0.788	
	TURBIDITY	NS	NS	NTU	5		3		80		12		4	
	DISSOLVED OXYGEN	NS	NS	mg/L	1.0		0.0		1.4		0.6		0.45	
	TEMPERATURE	NS	NS	°C	16.4		14.4		14.8		17.9		13.2	
	ORP	NS	NS	mV	191		-58		-64		34		67	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 2
GZ-22
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GZ-22 Deep Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	VOLATILE ORGANICS													
	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	**14**	1.0	**12**	1.0	**86**	1.0	<	1.0	**28**	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.1		6.1		6.4	
	CONDUCTIVITY	NS	NS	mS/cm	0.330		0.218		0.173		0.146		0.128	
	TURBIDITY	NS	NS	NTU	5		5		25		31		126	
	DISSOLVED OXYGEN	NS	NS	mg/L	1.0		0.0		1.5		0.5		0.19	
	TEMPERATURE	NS	NS	°C	15.8		15.1		15.9		16.6		11.7	
	ORP	NS	NS	mV	198		91		32		154		81	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 3
GZ-23
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GZ-23 Shallow Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	**6.5**	1.0	<	1.0	<	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	**1.8**	1.0	**27**	1.0	**1.8**	1.0	**1.4**	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	**2.4**	1.0	**59**	1.0	**1.7**	1.0	**2**	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	<	200	NT		NT		NT		<	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.7		6.5		6.5	
	CONDUCTIVITY	NS	NS	mS/cm	0.339		0.428		0.254		0.109		0.129	
	TURBIDITY	NS	NS	NTU	157		0		224		12.2		4	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.3		0.1		0.08	
	TEMPERATURE	NS	NS	°C	16.6		16.1		15.4		14.6		11.6	
	ORP	NS	NS	mV	-8		-60		-78		-106		25	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 4
GZ-19
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GZ-19 Deep Aquifer Monitoring well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	VOLATILE ORGANICS													
	Vinyl Chloride	2	1	ug/L	<	1.0	<	250	<	1.0	<	250	<	250
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	250	<	1.0	<	250	<	250
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	250	<	1.0	<	250	<	250
	cis-1,2-Dichloroethene	70	35	ug/L	**4.6**	1.0	<	250	**4.2**	1.0	<	250	<	250
	1,1,1-Trichloroethane	200	100	ug/L	**13**	1.0	<	250	**9.0**	1.0	<	250	<	250
	Trichloroethene	5	2.5	ug/L	**260**	1.0	**390**	250	**200**	1.0	<	250	<	250
	Tetrachloroethene	5	2.5	ug/L	**16,000**	1.0	**20,000**	250	**19,000**	1.0	**16,000**	250	**8,400**	250
	Ethylbenzene	700	350	ug/L		1.0	<	250	<	1.0	<	250	<	250
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	500	<	2.0	<	500	<	500
	o-Xylene	NS	NS	ug/L	<	1.0	<	250	<	1.0	<	250	<	250
	Total Xylenes	1000	500	ug/L	<	2.0	<	500	<	2.0	<	500	<	500
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	250	<	1.0	<	250	<	250
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	250	<	1.0	<	250	<	250
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	250	<	1.0	<	250	<	250
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.0		6.1		6.4	
	CONDUCTIVITY	NS	NS	mS/cm	0.338		0.453		0.106		0.085		0.114	
	TURBIDITY	NS	NS	NTU	68		1		240		31.7		4	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.3		0.1		0.2	
	TEMPERATURE	NS	NS	°C	16.5		15.6		15.6		14		12.4	
	ORP	NS	NS	mV	24		79		105		113		51	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED
For the July 2008 sampling round GZ-19 and RIZ-7 data were inadvertentlyswitched. The error was corrected and they appear as they should in these tables

TABLE 5
RIZ-7
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

RIZ-7 Shallow Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	**15**	1.0	**120**	1.0	**85**	2.5	**100**	1.0	**130**	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	2.5	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	**2.6**	1.0	**3.1**	2.5	**3**	1.0	**3.6**	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	**2.5**	1.0	**64**	1.0	**41**	2.5	**54**	1.0	**100**	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	2.5	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	2.5	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	**7**	2.5	<	1.0	<	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	**2.7**	1.0	**2.8**	2.5	<	1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	**2.9**	2.0	<	5.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	**1.7**	1.0	**2.6**	1.0	**3.2**	2.5	**1.6**	1.0	**1.3**	1.0
	Total Xylenes	1000	500	ug/L	**1.7**	2.0	**5.7**	2.0	**3.2**	5.0	**1.6**	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	**1.0**	1.0	**1.2**	1.0	<	2.5	**3.2**	1.0	**3**	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	**1.0**	2.5	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	**1.0**	2.5	<	1.0	<	1.0
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	**300**	200	NT		NT		NT		**570**	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		6.1		6.4		6.7	
	CONDUCTIVITY	NS	NS	mS/cm	0.786		0.748		0.357		0.249		0.316	
	TURBIDITY	NS	NS	NTU	5		0		153		20		0	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.2		0		0.05	
	TEMPERATURE	NS	NS	°C	16.5		14.4		15.8		15.8		13.1	
	ORP	NS	NS	mV	-23		-53		-112		-117		5	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED
For the July 2008 sampling round GZ-19 and RIZ-7 data were inadvertentlyswitched. The error was corrected and they appear as they should in these tables

TABLE 6
GP-28
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GP-28 Shallow Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	**1,200**	5.0	**180**	2.5	<	1.0	**10**	1.0	**140**	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	**11**	5.0	<	2.5	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	**1,400**	5.0	200	2.5	**6.2**	1.0	**2.9**	1.0	**940**	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	350	1.0
	Tetrachloroethene	5	2.5	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	2,900	1.0
	Ethylbenzene	700	350	ug/L	<	5.0	<	2.5	**1.2**	1.0		1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	10	<	5.0	<	2.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	<	5.0	<	2.5	**1.8**	1.0	**1.9**	1.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	10	<	5.0	**1.8**	2.0	<	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	5.0	<	2.5	**1.3**	1.0	**1.0**	1.0	<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	<	1.0
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	**350**	200	NT		NT		NT		**290**	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.5		6.5		6.9	
	CONDUCTIVITY	NS	NS	mS/cm	0.900		0.492		0.700		0.410		0.135	
	TURBIDITY	NS	NS	NTU	5		30		270		116		420	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.6		0.1		0.32	
	TEMPERATURE	NS	NS	°C	12.0		11.1		17.6		16.8		5.9	
	ORP	NS	NS	mV	-47		-71		-112		-144		8	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 7
RIZ-5
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

RIZ-5 Shallow aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	**2.9**	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	**2.4**	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	**5.3**	1.0	<	1.0	<	1.0	<	1.0	**1.9**	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	<	200	NT		NT		NT		<	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.6		6.0		6.6	
	CONDUCTIVITY	NS	NS	mS/cm	0.465		0.919		0.181		0.226		0.353	
	TURBIDITY	NS	NS	NTU	64		110		713		325		1	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		7.0		7.4		8.59		3.55	
	TEMPERATURE	NS	NS	°C	14.7		13.5		14.2		14.5		11.4	
	ORP	NS	NS	mV	26		135		140		154		143	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 8
GZ-20
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GZ-20 Deep Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	**1.2**	1.0	**1.3**	1.0	<	5.0	<	5.0	**35**	5.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	cis-1,2-Dichloroethene	70	35	ug/L	**52**	1.0	**64**	1.0	**120**	5.0	**230**	5.0	**500**	5.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	Trichloroethene	5	2.5	ug/L	**52**	1.0	**60**	1.0	**99**	5.0	**180**	5.0	**400**	5.0
	Tetrachloroethene	5	2.5	ug/L	**89**	1.0	**130**	1.0	**230**	5.0	430	5.0	880	5.0
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	10	<	10	<	10
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	10	<	10	<	10
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.4		6.1		6.4	
	CONDUCTIVITY	NS	NS	mS/cm	0.346		0.220		0.124		0.139		0.132	
	TURBIDITY	NS	NS	NTU	280		165		585		118		42	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.6		0.1		0.23	
	TEMPERATURE	NS	NS	°C	15.3		14.6		15.0		14.4		12.0	
	ORP	NS	NS	mV	8		-38		66		73		86	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 9
RIZ-1
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

RIZ-1 Shallow Aquifer Background Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/06/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	NT		<	2.0	NT		<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	NT		<	2.0	NT		<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	NT		<	1.0	NT		<	1.0
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	<	200	NT		NT		NT		<	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		NT		NT		5.42		5.5	
	CONDUCTIVITY	NS	NS	mS/cm	0.912		NT		NT		0.199		0.342	
	TURBIDITY	NS	NS	NTU	5		NT		NT		1		3	
	DISSOLVED OXYGEN	NS	NS	mg/L	4.0		NT		NT		3		5.64	
	TEMPERATURE	NS	NS	°C	13.5		NT		NT		19.2		11.3	
	ORP	NS	NS	mV	256		NT		NT		248		222	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 10
GP-26
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GP-26 Shallow Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	**530**	25	**100**	1.0	**100**	5.0	**16**	10	**96**	10
	1,1-Dichloroethene	7	3.5	ug/L	<	25	**1.1**	1.0	<	5.0	<	10	<	10
	trans-1,2-Dichloroethene	100	50	ug/L	**70**	25	**20**	1.0	<	5.0	**19**	10		10
	cis-1,2-Dichloroethene	70	35	ug/L	**6,800**	25	**2,100**	1.0	**160**	5.0	**2,300**	100	**1,200**	100
	1,1,1-Trichloroethane	200	100	ug/L	<	25	<	1.0	<	5.0	<	10	<	10
	Trichloroethene	5	2.5	ug/L	**1,200**	25	**2,500**	1.0	**82**	5.0	**2,300**	100	**1,600**	100
	Tetrachloroethene	5	2.5	ug/L	**1,800**	25	**4,100**	1.0	**330**	5.0	**2,900**	100	**2,100**	100
	Ethylbenzene	700	350	ug/L	<	25	<	1.0	<	5.0	<	10	<	10
	m&p-Xylene	NS	NS	ug/L	<	50	<	2.0	<	10	<	20	<	20
	o-Xylene	NS	NS	ug/L	<	25	**1.3**	1.0	<	5.0	<	10	<	10
	Total Xylenes	1000	500	ug/L	<	50	**1.3**	2.0	<	10	<	20	<	20
	2-Chlorotoluene	NS	NS	ug/L	<	25	<	1.0	<	5.0	<	10	<	10
	N-Propylbenzene	NS	NS	ug/L	<	25	<	1.0	<	5.0	<	10	<	10
	sec-Butylbenzene	NS	NS	ug/L	<	25	<	1.0	<	5.0	<	10	<	10
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	**800**	200	NT		NT		NT		**450**	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		6.0		5.3		6.5		6.8	
	CONDUCTIVITY	NS	NS	mS/cm	3.00		3.49		0.462		0.341		0.490	
	TURBIDITY	NS	NS	NTU	5		1		51		31		5	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.3		0.3		0.3	
	TEMPERATURE	NS	NS	°C	13.9		12.5		14.6		17.7		10.4	
	ORP	NS	NS	mV	31		61		-40		-8		89	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 11
GZ-7
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GZ-7 Deep Aquifer Monitoring well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	**1.3**	1.0	<	1.0	<	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	**13**	1.0	**140**	1.0	**33**	1.0	**4.2**	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	**74**	1.0	**140**	1.0	**37**	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	**26**	1.0	**15**	1.0	**7.1**	1.0	<	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.5		6.34		7.2	
	CONDUCTIVITY	NS	NS	mS/cm	0.223		0.359		0.226		0.106		0.168	
	TURBIDITY	NS	NS	NTU	5		5		17		0.3		4	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		1.0		0.4		0.3	
	TEMPERATURE	NS	NS	°C	14.5		14.3		13.9		13.9		12.2	
	ORP	NS	NS	mV	-8		-55		-80		-48		-18	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 12
GZ-3
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

GZ-3 Deep Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/06/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	VOLATILE ORGANICS													
	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	**3.1**	1.0	<	10	**8.1**	10
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	cis-1,2-Dichloroethene	70	35	ug/L	**9.3**	1.0	**16**	1.0	**65**	1.0	**86**	10	**110**	10
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	Trichloroethene	5	2.5	ug/L	**10**	1.0	**17**	1.0	**91**	1.0	**93**	10	**81**	10
	Tetrachloroethene	5	2.5	ug/L	**12**	1.0	**22**	1.0	**440**	1.0	**180**	10	**160**	10
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	2.0	<	20	<	20
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	2.0	<	20	<	20
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	10	<	10
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		5.0		5.1		6.5		6.2	
	CONDUCTIVITY	NS	NS	mS/cm	0.339		0.392		0.206		0.114		0.415	
	TURBIDITY	NS	NS	NTU	5		5		34		7		5	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.7		0.28		0.25	
	TEMPERATURE	NS	NS	°C	15.4		15.4		14.8		14.6		12.4	
	ORP	NS	NS	mV	-15		8		-22		-41		49	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 13
RIZ-13
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

RIZ-13 Shallow Aquifer Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/06/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	**VOLATILE ORGANICS**													
	Vinyl Chloride	2	1	ug/L	**4.4**	1.0	<	1.0	<	1.0	<	1.0	**1.1**	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	**6.6**	1.0	<	1.0	<	1.0	<	1.0	**3.8**	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	**5.6**	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	**6.9**	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	<	2.0	<	2.0	<	2.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Mod. EPA 8100	**TOTAL PETROLEUM HYDROCARBON**													
	Hydrocarbon Content	NS	NS	ug/L	<	200	NT		NT		NT		**1,100**	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	5.0		6.0		4.8		6.83		5.8	
	CONDUCTIVITY	NS	NS	mS/cm	0.392		0.900		0.773		0.361		0.875	
	TURBIDITY	NS	NS	NTU	3		5		208		54.8		4	
	DISSOLVED OXYGEN	NS	NS	mg/L	1.0		10.0		12.0		7.7		5.7	
	TEMPERATURE	NS	NS	°C	14.8		14.8		15.6		16.2		12.4	
	ORP	NS	NS	mV	28		56		34		-9		176	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 14
RIZ-6
DETECTED CONSTITUENTS SUMMARY

Quarterly ICMP
Charbert Facility
Richmond, Rhode Island

RIZ-6 Shallow Aquifer Background Monitoring Well		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		04/01/2008		07/07/2008		10/01/2008		01/05/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260	VOLATILE ORGANICS													
	Vinyl Chloride	2	1	ug/L	<	1.0	NT		NT		NT		<	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	1.0	NT		NT		NT		<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	NT		NT		NT		<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	NT		NT		NT		<	1.0
	1,1,1-Trichloroethane	200	100	ug/L	<	1.0	NT		NT		NT		<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	NT		NT		NT		<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	NT		NT		NT		<	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	NT		NT		NT		<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	NT		NT		NT		<	2.0
	o-Xylene	NS	NS	ug/L	<	1.0	NT		NT		NT		<	1.0
	Total Xylenes	1000	500	ug/L	<	2.0	NT		NT		NT		<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	NT		NT		NT		<	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	NT		NT		NT		<	1.0
	sec-Butylbenzene	NS	NS	ug/L	<	1.0	NT		NT		NT		<	1.0
Mod. EPA 8100	TOTAL PETROLEUM HYDROCARBON													
	Hydrocarbon Content	NS	NS	ug/L	<	200	NT		NT		NT		<	200
	FIELD PARAMETERS													
	pH	NS	NS	SU	4.0		NT		NT		NT		6.8	
	CONDUCTIVITY	NS	NS	mS/cm	0.31		NT		NT		NT		0.142	
	TURBIDITY	NS	NS	NTU	5		NT		NT		NT		4	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		NT		NT		NT		1.9	
	TEMPERATURE	NS	NS	°C	14.1		NT		NT		NT		11.6	
	ORP	NS	NS	mV	-28		NT		NT		NT		19	

Notes:
PAL = RIDEMs Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
ND = NO DETECTS
NS = NO STANDARD
NT = NOT TESTED

TABLE 15
SVE-1
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-1						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	0.9	1.0	20.0	0.5	0	*Interior SVE system start up*
1/24/2008	8.4	2.0	6.0	19.9	0.2	0	
2/26/2008	6.8	2.0	1.5	20.6	0.1	0	
3/26/2008	7.6	0.6	0.2	20.0	0.1	0	
4/18/2008	6.4	1.0	2.3	20.9	0.1	0	
5/15/2008	7.2	1.3	2.8	20.8	0.1	0	
6/27/2008	7.6	1.7	0.5	20.3	0.0	0	
7/18/2008	7.4	1.7	0.1	20.3	0.0	0	
8/14/2008	7.2	1.5	2.8	20.9	0.0	0	
9/10/2008	7.2	1.7	1.0	20.9	0.0	0	
10/8/2008	7.2	1.6	0.9	20.9	0.1	0	
11/5/2008	7.2	1.9	1.4	19.1	0.0	0	
12/3/2008	-	-	-	-	-	-	Condensate observed
1/21/2009	7.7	1.9	8.2	20.7	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.3	1.5	2.2	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 16
SVE-2
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-2						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	7.2	0.9	1.0	20.0	0.5	0	*Interior SVE system start up*
1/24/2008	7.6	3.0	3.0	19.9	0.2	0	
2/26/2008	6.8	2.6	2.0	20.6	0.0	0	
3/26/2008	7.2	1.4	<0.1	20.1	0.1	0	
4/18/2008	6.6	2.0	2.0	20.7	0.0	0	
5/15/2008	6.2	1.6	2.8	20.9	0.0	0	
6/27/2008	7.4	2.6	0.5	20.4	0.0	0	
7/18/2008	7.8	2.6	0.1	20.4	0.0	0	
8/14/2008	7.4	2.9	2.6	20.9	0.0	0	
9/10/2008	7.2	2.4	1.1	20.9	0.0	0	
10/8/2008	7.2	2.5	0.7	20.9	0.1	0	
11/5/2008	7.0	2.7	1.6	19.5	0.1	0	
12/3/2008	7.4	2.3	6.6	20.4	0.0	0	
1/21/2009	7.4	2.5	7.8	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	2.3	2.4	20.5	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 17
SVE-3
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-3						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	0.3	0.5	20.0	0.5	0	*Interior SVE system start up*
1/24/2008	7.6	2.1	3.0	19.9	0.0	0	
2/26/2008	6.8	1.5	2.3	20.6	0.0	0	
3/26/2008	7.2	1.4	0.2	20.0	0.1	0	
4/18/2008	6.2	1.0	1.6	20.8	0.0	0	
5/15/2008	7.2	1.3	2.3	20.8	0.0	0	
6/27/2008	7.6	1.7	0.4	20.2	0.1	0	
7/18/2008	7.8	1.7	0.2	20.3	0.0	0	
8/14/2008	7.4	1.8	2.3	20.9	0.0	0	
9/10/2008	7.6	1.8	0.9	20.9	0.0	0	
10/8/2008	7.7	1.8	0.5	20.9	0.1	0	
11/5/2008	7.4	1.8	0.2	19.9	0.1	0	
12/3/2008	7.6	1.5	6.8	20.3	0.0	0	
1/21/2009	7.6	1.8	7.9	20.7	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.3	1.5	2.1	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 18
SVE-4
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-4						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	1.3	2.0	19.4	0.6	0	*Interior SVE system start up*
1/24/2008	7.2	1.6	4.0	20.0	0.1	0	
2/26/2008	6.8	1.3	3.0	20.3	0.1	0	
3/26/2008	7.2	1.1	0.2	20.0	0.2	0	
4/18/2008	7.2	0.9	2.3	20.7	0.1	0	
5/15/2008	7.2	0.1	3.2	20.6	0.1	0	
6/27/2008	7.5	2.7	1.1	20.4	0.0	0	
7/18/2008	7.4	1.1	0.3	20.3	0.1	0	
8/14/2008	7.2	1.2	3.7	20.9	0.1	0	
9/10/2008	7.4	1.3	1.0	20.9	0.0	0	
10/8/2008	7.4	1.2	3.0	20.9	0.1	0	
11/5/2008	7.2	1.4	1.3	19.8	0.1	0	
12/3/2008	--	--	--	--	--	--	Codensate observed
1/21/2009	--	10.8	--	--	--	--	Codensate observed

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	2.0	2.1	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 19
SVE-5
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-5						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.0	3.1	0.9	19.4	0.5	0	*Interior SVE system start up*
1/24/2008	7.2	4.2	4.0	19.9	0.1	0	
2/26/2008	7.2	4.1	2.4	20.4	0.1	0	
3/26/2008	7.6	3.5	<0.1	20.1	0.1	0	
4/18/2008	6.5	2.6	2.9	20.8	0.1	0	
5/15/2008	5.2	1.6	3.7	20.7	0.0	0	
6/27/2008	4.2	2.4	0.7	20.3	0.1	0	
7/18/2008	3.9	2.9	0.3	20.3	0.1	0	
8/14/2008	6.1	4.0	4.6	20.9	0.0	0	
9/10/2008	7.0	2.8	0.8	20.9	0.0	0	
10/8/2008	7.4	3.6	2.3	20.9	0.1	0	
11/5/2008	7.2	5.2	1.4	19.9	0.1	0	Codensate observed
12/3/2008	7.4	3.5	6.2	20.3	0.0	0	
1/21/2009	7.6	4.3	7.6	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.5	3.4	2.9	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 20
SVE-6
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-6						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	2.2	1.2	19.7	0.7	0	*Interior SVE system start up*
1/24/2008	7.6	2.3	3.0	19.9	0.3	0	
2/26/2008	7.2	2.1	3.1	20.5	0.0	0	
3/26/2008	7.6	1.9	0.2	20.0	0.1	0	
4/18/2008	6.6	1.5	3.6	20.8	0.0	0	
5/15/2008	6.9	1.5	3.2	20.7	0.2	0	
6/27/2008	7.6	1.2	0.5	20.4	0.0	0	
7/18/2008	7.4	2.5	0.7	20.4	0.1	0	
8/14/2008	7.6	1.9	3.3	20.9	0.0	0	
9/10/2008	7.2	2.2	0.7	20.9	0.0	0	
10/8/2008	7.2	1.9	1.6	20.9	0.1	0	
11/5/2008	7.5	2.3	1.5	19.7	0.1	0	Codensate observed
12/3/2008	7.6	1.9	5.3	20.4	0.0	0	
1/21/2009	7.4	2.0	7.3	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.3	2.0	2.5	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 21
SVE-7
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-7						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	3.3	0.7	19.2	0.6	0	*Interior SVE system start up*
1/24/2008	6.4	4.5	2.0	20.6	0.2	0	
2/26/2008	7.2	4.1	3.1	20.5	0.1	0	
3/26/2008	6.8	2.6	0.2	19.7	0.3	0	
4/18/2008	3.2*	-	1.3	20.7	0.1	0	Condensate observed
5/15/2008	5.8	1.6	1.4	20.8	0.1	0	
6/27/2008	5.6	3.0	0.2	20.2	0.1	0	
7/18/2008	6.3	3.1	0.1	20.0	0.1	0	
8/14/2008	7.0	4.2	1.8	20.9	0.1	0	
9/10/2008	7.4	3.1	0.4	20.9	0.1	0	
10/8/2008	7.4	2.7	0.4	20.9	0.1	0	
11/5/2008	7.2	3.2	0.8	19.6	0.1	0	
12/3/2008	7.6	3.4	11.2	20.3	0.0	0	
1/21/2009	7.4	12.4	5.5	20.8	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.8	3.9	2.1	20.4	0.2	368

Notes:

*Flow rate estimated based on difference between combined flow and measured flow readings.

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 22
SVE-8
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-8						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	3.3	0.6	18.7	1.1	0	*Interior SVE system start up*
1/24/2008	7.6	3.5	2.0	20.4	0.3	0	
2/26/2008	6.8	3.2	3.8	20.5	0.1	0	
3/26/2008	7.6	2.6	<0.1	19.8	0.3	0	
4/18/2008	6.4	1.8	1.4	20.8	0.2	0	
5/15/2008	5.8	1.6	1.8	20.8	0.2	0	
6/27/2008	7.4	3.0	0.5	20.1	0.0	0	
7/18/2008	7.2	3.1	<0.1	20.2	0.1	0	
8/14/2008	7.4	3.3	2.8	20.9	0.1	0	
9/10/2008	7.2	3.3	0.6	20.9	0.1	0	
10/8/2008	7.4	2.8	0.7	20.9	0.1	0	
11/5/2008	7.2	3.3	0.7	19.8	0.0	0	
12/3/2008	7.7	2.4	10.4	20.3	0.0	0	
1/21/2009	7.7	2.5	6.2	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	2.8	2.6	20.4	0.2	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 23
SVE-9
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-9						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	1.4	1.2	18.6	1.3	0	*Interior SVE system start up*
1/24/2008	7.2	1.7	3.0	20.4	0.3	0	
2/26/2008	7.2	1.8	3.3	20.2	0.1	0	
3/26/2008	-	-	-	-	-	-	Condensate observed
4/18/2008	3.2*	-	1.3	20.8	0.2	0	Condensate observed
5/15/2008	7.2	0.9	1.4	20.6	0.2	0	
6/27/2008	7.5	1.7	1.5	20.2	0.1	0	
7/18/2008	8.0	1.7	0.3	20.1	0.1	0	
8/14/2008	7.2	1.5	3.2	20.9	0.1	0	
9/10/2008	7.2	1.5	0.7	20.9	0.1	0	
10/8/2008	7.6	1.4	0.9	20.9	0.1	0	
11/5/2008	7.4	6.4	0.8	20.0	0.1	0	
12/3/2008	7.6	2.1	11.8	20.3	0.0	0	
1/21/2009	7.6	11.6	5.9	20.8	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.4	2.8	2.7	20.4	0.2	368

Notes:
1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

*Flow rate estimated based on difference between combined flow and measured flow readings.

TABLE 24
SVE-10
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-10						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.4	1.9	0.7	19.0	1.1	0	*Interior SVE system start up*
1/24/2008	8.0	2.3	7.0	20.2	0.2	0	
2/26/2008	7.2	2.1	1.2	20.7	0.1	0	
3/26/2008	6.8	1.8	0.2	19.8	0.3	0	
4/18/2008	6.2	1.3	2.0	20.4	0.2	0	
5/15/2008	7.4	1.5	1.4	20.7	0.3	0	
6/27/2008	7.5	1.6	0.4	20.3	0.1	0	
7/18/2008	7.6	1.6	0.3	20.2	0.1	0	
8/14/2008	7.8	1.7	1.1	20.9	0.1	0	
9/10/2008	7.2	1.6	0.4	20.9	0.1	0	
10/8/2008	7.4	1.7	0.7	20.9	0.1	0	
11/5/2008	7.4	2.1	0.6	19.8	0.1	0	
12/3/2008	7.6	2.6	6.6	20.3	0.0	0	
1/21/2009	7.7	2.3	5.8	20.8	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.3	1.9	2.0	20.4	0.2	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 25
SVE-11
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-11						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	2.0	1.2	16.2	3.1	0	*Interior SVE system start up*
1/24/2008	7.6	2.3	8.0	19.9	0.6	0	
2/26/2008	6.8	2.1	1.6	20.3	0.3	0	
3/26/2008	6.4	2.8	1.3	19.6	0.5	0	
4/18/2008	6.9	1.5	1.9	20.2	0.3	0	
5/15/2008	7.4	1.7	1.8	20.5	0.1	0	
6/27/2008	7.5	1.9	<0.1	20.2	0.1	0	
7/18/2008	7.6	1.9	0.1	20.1	0.2	0	
8/14/2008	7.4	1.9	1.5	20.9	0.2	0	
9/10/2008	7.4	2.0	0.6	20.7	0.3	0	
10/8/2008	7.6	1.8	0.8	20.9	0.2	0	
11/5/2008	7.4	2.0	0.6	20.0	0.0	0	
12/3/2008	7.2	3.7	6.4	20.2	0.1	0	
1/21/2009	7.6	2.6	6.2	20.6	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.3	2.2	2.5	20.0	0.4	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 26
SVE-12
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-12						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.4	39.0	0.9	17.2	2.8	0	*Interior SVE system start up*
1/24/2008	7.6	4.6	9.0	19.7	0.5	0	
2/26/2008	6.8	4.0	1.8	20.5	0.1	0	
3/26/2008	-	-	-	-	-	-	Condensate observed
4/18/2008	7.2	3.0	1.6	20.4	0.1	0	
5/15/2008	6.4	2.5	2.3	20.7	0.0	0	
6/27/2008	7.5	3.4	<0.1	20.3	0.1	0	
7/18/2008	7.6	3.3	0.3	20.2	0.0	0	
8/14/2008	7.2	3.9	1.3	20.9	0.0	0	
9/10/2008	7.4	3.6	0.5	20.9	0.1	0	
10/8/2008	7.4	3.0	0.8	20.9	0.1	0	
11/5/2008	7.2	2.9	0.8	19.9	0.0	0	
12/3/2008	7.7	6.9	4.8	20.3	0.0	0	
1/21/2009	7.7	3.7	6.1	20.7	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	6.4	2.5	20.2	0.3	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 27
SVE-13
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-13						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	7.2	2.2	0.5	19.9	0.4	0	*Interior SVE system start up*
1/24/2008	8.0	2.3	5.0	20.1	0.1	0	
2/26/2008	7.2	1.7	2.7	20.3	0.1	0	
3/26/2008	7.6	2.1	0.2	20.1	0.1	0	
4/18/2008	6.5	1.8	1.3	20.6	0.0	0	
5/15/2008	6.6	1.4	1.8	20.7	0.0	0	
6/27/2008	8.0	1.7	0.6	20.3	0.2	0	
7/18/2008	7.4	1.5	0.3	20.2	0.0	0	
8/14/2008	7.4	1.8	2.4	20.9	0.0	0	
9/10/2008	7.4	1.6	1.1	20.9	0.0	0	
10/8/2008	7.6	3.8	0.8	20.9	0.1	0	
11/5/2008	7.4	1.0	1.4	19.1	0.0	0	
12/3/2008	7.4	1.1	12.2	20.5	0.0	0	
1/21/2009	7.4	1.6	--	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.4	1.8	2.3	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 28
SVE-14
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-14						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	2.3	0.6	19.7	0.6	0	*Interior SVE system start up*
1/24/2008	7.6	2.5	4.0	20.0	0.2	0	
2/26/2008	6.8	1.6	4.5	20.3	0.0	0	
3/26/2008	7.2	2.0	0.2	20.2	0.1	0	
4/18/2008	6.0	1.5	1.4	20.9	0.0	0	
5/15/2008	6.6	1.3	1.8	20.6	0.0	0	
6/27/2008	7.6	2.1	0.5	20.3	0.0	0	
7/18/2008	7.6	2.2	0.3	20.4	0.0	0	
8/14/2008	7.8	1.8	2.2	20.9	0.1	0	
9/10/2008	7.2	1.7	1.4	20.9	0.1	0	
10/8/2008	7.4	1.8	1.3	20.9	0.1	0	
11/5/2008	7.2	1.6	1.6	19.3	0.0	0	
12/3/2008	7.7	1.7	12.8	20.5	0.0	0	
1/21/2009	7.8	2.0	--	20.9	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	1.9	2.5	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer .
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 29
SVE-15
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-15						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	0.8	0.6	20.1	0.3	0	*Interior SVE system start up*
1/24/2008	8.0	1.0	6.0	20.0	0.2	0	
2/26/2008	7.5	1.1	1.5	20.9	0.1	0	
3/26/2008	7.2	0.9	1.9	19.9	0.1	0	
4/18/2008	7.2	0.9	1.6	20.5	0.1	0	
5/15/2008	7.6	0.7	1.8	20.9	0.0	0	
6/27/2008	7.5	1.1	0.4	20.4	0.0	0	
7/18/2008	7.6	1.2	0.1	20.2	0.0	0	
8/14/2008	7.4	1.0	2.0	20.9	0.0	0	
9/10/2008	7.2	0.8	0.8	20.9	0.1	0	
10/8/2008	7.4	0.8	1.4	20.9	0.1	0	
11/5/2008	7.2	0.7	1.2	19.2	0.0	0	
12/3/2008	7.6	1.5	11.8	20.5	0.0	0	
1/21/2009	7.7	0.8	--	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.4	1.0	2.4	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 30
SVE-16
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-16						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	2.0	0.6	20.1	0.2	0	*Interior SVE system start up*
1/24/2008	8.4	2.5	6.0	20.1	0.2	0	
2/26/2008	6.8	2.2	1.3	20.6	0.1	0	
3/26/2008	6.4	1.8	0.6	19.8	0.1	0	
4/18/2008	6.2	1.9	1.7	20.7	0.1	0	
5/15/2008	7.4	1.8	1.8	20.9	0.1	0	
6/27/2008	7.5	2.0	1.2	20.4	0.1	0	
7/18/2008	7.8	2.1	0.5	20.2	0.0	0	
8/14/2008	7.4	2.0	2.0	20.9	0.0	0	
9/10/2008	7.6	2.1	0.6	20.9	0.0	0	
10/8/2008	7.4	2.0	1.2	20.9	0.1	0	
11/5/2008	7.0	1.5	--	--	--	--	Condensate observed
12/3/2008	7.4	1.4	12.2	20.5	0.0	0	
1/21/2009	7.9	2.3	--	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.3	2.0	2.5	20.5	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 31
SSVW-1
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SSVW-1						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	1.6	0.1	20.0	0.3	0	*Interior SVE system start up*
1/24/2008	6.4	1.9	2.0	20.0	0.1	0	
2/26/2008	7.2	1.3	1.8	20.4	0.1	0	
3/26/2008	7.6	1.1	<0.1	20.1	0.1	0	
4/18/2008	6.5	0.9	4.5	20.7	0.1	0	
5/15/2008	6.8	1.3	1.4	20.7	0.0	0	
6/27/2008	7.5	2.3	0.8	20.3	0.0	0	
7/18/2008	7.8	2.3	0.3	20.3	0.1	0	
8/14/2008	7.6	2.1	4.6	20.9	0.2	0	
9/10/2008	7.2	2.0	3.4	20.9	0.1	0	
10/8/2008	7.6	1.6	0.4	20.9	0.1	0	
11/5/2008	7.2	1.6	1.7	19.7	0.1	0	
12/3/2008	7.4	2.3	4.7	20.5	0.0	0	
1/21/2009	7.4	0.8	--	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	1.7	2.1	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 32
SSVW-2
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SSVW-2						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.0	2.8	0.1	20.1	0.3	0	*Interior SVE system start up*
1/24/2008	7.6	2.7	2.5	20.0	0.1	0	
2/26/2008	6.8	1.4	1.2	20.6	0.0	0	
3/26/2008	7.2	1.6	<0.1	20.2	0.1	0	
4/18/2008	6.2	1.3	4.8	20.7	0.0	0	
5/15/2008	6.9	1.3	1.4	20.6	0.0	0	
6/27/2008	7.6	1.9	0.5	20.4	0.0	0	
7/18/2008	7.6	1.9	1.0	20.2	0.0	0	
8/14/2008	7.6	1.8	2.3	20.9	0.1	0	
9/10/2008	7.6	1.6	2.4	20.9	0.1	0	
10/8/2008	7.7	1.7	0.8	20.9	0.1	0	
11/5/2008	7.4	1.6	1.7	19.7	0.1	0	
12/3/2008	7.4	0.8	3.6	20.5	0.1	0	
1/21/2009	7.4	1.1	--	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	1.7	1.9	20.5	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 33
SSVW-3
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SSVW-3						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	7.2	1.8	1.2	19.6	0.4	0	*Interior SVE system start up*
1/24/2008	7.2	1.4	2.0	20.2	0.2	0	
2/26/2008	6.8	1.5	1.8	20.5	0.2	0	
3/26/2008	6.8	0.4	0.2	20.0	0.1	0	
4/18/2008	3.2*	0.5	1.6	20.6	0.1	0	Condensate observed
5/15/2008	7.2	0.8	1.8	20.7	0.1	0	
6/27/2008	7.5	1.6	0.7	20.2	0.0	0	
7/18/2008	7.2	0.3	0.3	20.3	0.0	0	
8/14/2008	7.4	0.3	3.7	20.9	0.0	0	
9/10/2008	7.2	0.2	0.8	20.9	0.0	0	
10/8/2008	7.7	0.3	0.7	20.9	0.1	0	
11/5/2008	7.4	1.6	1.4	19.6	0.1	0	
12/3/2008	7.4	3.2	11.4	20.4	0.1	0	
1/21/2009	7.4	2.2	6.9	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.3	1.2	2.5	20.4	0.1	368

Notes:
*Flow rate estimated based on difference between combined flow and measured flow readings.
1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 34
SSVW-4
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SSVW-4						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	1.4	0.3	18.1	1.5	0	*Interior SVE system start up*
1/24/2008	7.6	1.2	5.0	19.8	0.8	0	
2/26/2008	6.8	1.5	5.2	20.1	0.3	0	
3/26/2008	7.2	1.1	0.2	20.1	0.3	0	
4/18/2008	6.6	0.9	1.6	20.7	0.1	0	
5/15/2008	6.9	1.4	1.4	20.7	0.1	0	
6/27/2008	7.6	1.8	0.4	20.1	0.1	0	
7/18/2008	7.4	1.9	0.1	20.1	0.1	0	
8/14/2008	7.6	1.6	3.3	20.9	0.1	0	
9/10/2008	7.4	1.7	0.5	20.9	0.1	0	
10/8/2008	7.2	1.5	0.9	20.9	0.1	0	
11/5/2008	7.2	1.7	1.8	19.7	0.1	0	
12/3/2008	7.4	2.1	3.6	20.3	0.1	0	
1/21/2009	7.7	1.8	8.0	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	1.5	2.3	20.2	0.3	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 35
SSVW-5
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SSVW-5						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	0.3	1.1	19.7	0.3	0	*Interior SVE system start up*
1/24/2008	7.6	0.1	12.0	20.2	0.2	0	
2/26/2008	6.8	0.3	5.3	20.3	0.2	0	
3/26/2008	6.8	0.2	0.2	20.2	0.1	0	
4/18/2008	6.2	0.2	1.3	20.5	0.2	0	
5/15/2008	7.4	0.2	1.4	20.5	0.2	0	
6/27/2008	7.6	0.2	0.2	20.4	0.1	0	
7/18/2008	7.4	0.2	0.1	20.2	0.1	0	
8/14/2008	7.4	0.2	3.6	20.9	0.0	0	
9/10/2008	7.2	0.2	0.7	20.9	0.1	0	
10/8/2008	7.4	0.3	0.8	20.9	0.1	0	
11/5/2008	7.2	0.9	1.9	19.8	0.1	0	
12/3/2008	7.6	0.2	2.1	20.3	0.1	0	
1/21/2009	7.7	0.3	--	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	0.3	2.4	20.4	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 36
SSVW-6
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SSVW-6						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	1.7	1.0	19.9	0.4	0	*Interior SVE system start up*
1/24/2008	7.2	3.2	8.0	19.8	0.2	0	
2/26/2008	7.2	2.7	1.1	20.7	0.1	0	
3/26/2008	6.8	1.5	2.4	19.9	0.2	0	
4/18/2008	6.4	1.4	1.3	20.6	0.2	0	
5/15/2008	7.4	1.2	2.3	20.9	0.0	0	
6/27/2008	7.6	1.6	1.6	20.5	0.1	0	
7/18/2008	7.6	1.3	0.7	20.3	0.1	0	
8/14/2008	7.6	1.3	0.9	20.9	0.1	0	
9/10/2008	7.0	1.3	3.4	20.9	0.1	0	
10/8/2008	7.4	1.4	1.0	20.9	0.1	0	
11/5/2008	7.0	1.6	1.5	19.9	0.1	0	
12/3/2008	7.4	3.1	11.7	20.4	0.1	0	
1/21/2009	7.6	2.9	3.4	20.7	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.2	1.9	2.9	20.5	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 37
SSVW-7
Summary of Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SSVW-7						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	6.8	0.1	0.3	20.2	0.0	0	*Interior SVE system start up*
1/24/2008	8.0	0.1	0.8	20.9	0.1	0	
2/26/2008	7.2	0.8	1.2	20.8	0.0	0	
3/26/2008	7.2	0.1	1.9	20.0	0.1	0	
4/18/2008	6.5	0.1	1.4	20.6	0.0	0	
5/15/2008	7.2	0.1	1.8	20.9	0.1	0	
6/27/2008	7.6	0.1	0.8	20.5	0.0	0	
7/18/2008	7.6	0.1	0.3	20.4	0.0	0	
8/14/2008	7.6	0.1	0.6	20.9	0.0	0	
9/10/2008	7.4	0.5	<0.1	20.9	0.0	0	
10/8/2008	7.4	0.2	<0.1	20.9	0.1	0	
11/5/2008	7.2	0.2	2.5	20.0	0.1	0	
12/3/2008	7.7	0.3	3.3	20.5	0.1	0	
1/21/2009	7.8	0.2	1.1	20.8	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	7.4	0.2	1.3	20.6	0.1	368

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored

TABLE 38
SVE-17
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-17						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	5.6	2.8	11.4	18.2	1.8	0	Exterior SVE system start up
1/24/2008	6.0	1.6	3.0	19.9	0.5	2	
2/26/2008	6.0	2.4	0.9	20.9	0.4	0	
3/26/2008	6.0	2.0	1.5	20.4	0.2	0	
4/18/2008	6.0	1.7	-	19.0	0.2	0	
5/15/2008	5.8	1.3	2.0	20.3	0.3	0	
6/27/2008	-	1.2	1.6	18.7	0.5	0	
7/18/2008	6.3	1.1	6.6	18.6	0.6	0	
8/14/2008	5.8	1.5	7.7	20.9	0.5	0	
9/10/2008	5.8	1.6	0.8	19.8	0.7	0	
10/8/2008	6.1	1.6	2.1	20.4	0.3	0	
11/5/2008	5.8	1.8	2.4	18.7	0.1	0	
12/3/2008	6.1	2.4	13.8	19.8	0.1	0	
1/21/2009 (5)	6.1	2.5	--	20.4	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.0	1.8	4.5	19.7	0.5	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 39
SVE-18
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-18						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	<2	2.8	1.6	16.1	3.5	0	Exterior SVE system start up
1/24/2008	4.2	2.8	1.0	19.2	0.8	0	
2/26/2008	5.0	2.3	1.1	20.9	0.4	0	
3/26/2008	5.6	3.7	3.3	20.3	0.1	0	
4/18/2008	6.1	3.4	-	19.0	0.1	0	
5/15/2008	6.0	3.1	4.4	20.3	0.2	0	
6/27/2008	-	2.9	1.5	18.6	0.4	0	
7/18/2008	6.1	2.9	3.9	18.2	0.7	0	
8/14/2008	5.0	3.4	8.5	20.9	0.6	0	
9/10/2008	4.8	0.5	1.4	19.8	0.8	0	Condensate observed
10/8/2008	5.1*	2.7	4.3	20.3	0.3	0	
11/5/2008	5.7*	2.4	2.5	18.9	0.1	0	
12/3/2008	5.0*	2.9	15.7	19.7	0.1	0	
1/21/2009 (5)	4.8	4.3	--	20.9	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	5.3	2.9	4.1	19.5	0.6	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.

TABLE 40
SVE-19
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-19						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	5.6	2.8	1.7	11.3	7.3	0	Exterior SVE system start up
1/24/2008	5.0	2.8	1.0	18.3	1.5	0	
2/26/2008	4.2	3.7	1.1	20.9	0.7	0	
3/26/2008	4.0	3.6	3.3	20.0	0.3	0	
4/18/2008	6.5	3.2	-	19.0	0.2	0	
5/15/2008	6.2	3.2	5.5	20.1	0.4	0	
6/27/2008	-	2.9	1.2	18.4	0.6	0	
7/18/2008	5.5	2.8	4.6	17.6	0.9	0	
8/14/2008	5.8	3.0	7.8	20.9	0.8	0	
9/10/2008	5.8	3.3	5.5	19.8	0.9	0	
10/8/2008	5.1*	2.8	5.2	20.1	0.5	0	
11/5/2008	5.7*	2.8	0.5	18.8	0.1	0	
12/3/2008	5.0*	3.1	16.8	19.8	0.2	0	
1/21/2009 (5)	5.7	4.4	--	20.9	0.3	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	5.4	3.2	4.5	19.0	1.1	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

*Flow rate estimated based on difference between combined flow and measured flow readings.

TABLE 41
SVE-20
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-20						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	5.2	2.4	1.4	18.1	3.0	0	Exterior SVE system start up
1/24/2008	6.0	2.3	1.0	19.7	0.8	0	
2/26/2008	6.0	3.7	0.9	20.9	0.3	0	
3/26/2008	6.0	2.9	2.8	19.8	0.3	0	
4/18/2008	6.6	2.2	-	18.9	0.2	0	
5/15/2008	6.2	2.0	5.0	20.2	0.3	0	
6/27/2008	-	1.8	0.4	19.2	0.4	0	
7/18/2008	6.6	2.7	3.7	18.6	0.5	0	
8/14/2008	6.3	2.5	0.6	20.9	0.4	0	
9/10/2008	6.1	2.0	1.4	19.8	0.7	0	
10/8/2008	6.1	2.3	2.6	20.2	0.3	0	
11/5/2008	5.8	2.7	0.0	18.7	0.1	0	
12/3/2008	6.1	2.9	15.2	20.0	0.1	0	
1/21/2009 (5)	6.1	4.0	--	20.7	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.1	2.6	2.9	19.7	0.5	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 42
SVE-21
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-21						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	3.4	2.1	1.1	19.8	2.2	0	Exterior SVE system start up
1/24/2008	4.0	2.5	<0.1	20.7	0.1	0	
2/26/2008	4.2	3.1	0.5	20.9	0.1	0	
3/26/2008	5.0	3.2	0.2	19.5	0.1	0	
4/18/2008	8.6	2.6	-	19.4	0.0	0	
5/15/2008	5.8	2.9	3.2	20.2	0.1	0	
6/27/2008	-	2.7	0.2	19.0	0.1	0	
7/18/2008	6.1	2.0	1.0	19.2	0.1	0	
8/14/2008	6.1	2.3	1.3	20.9	0.2	0	
9/10/2008	5.8	2.4	0.8	20.3	0.2	0	
10/8/2008	4.8	2.1	1.1	20.2	0.1	0	
11/5/2008	5.7*	1.6	0.4	18.8	0.0	0	
12/3/2008	5.0*	2.1	13.8	20.1	0.0	0	
1/21/2009 (5)	4.0	3.9	--	20.9	0.2	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	5.3	2.5	2.1	20.0	0.3	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

*Flow rate estimated based on difference between combined flow and measured flow readings.

TABLE 43
SVE-22
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-22						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	5.6	1.8	2.8	20.9	0.5	0	Exterior SVE system start up
1/24/2008	6.0	1.0	1.0	20.9	0.1	0	
2/26/2008	6.0	2.2	0.7	20.9	0.1	0	
3/26/2008	5.6	1.3	1.1	19.4	0.1	0	
4/18/2008	5.2*	1.3	-	19.6	0.1	0	Condensate observed
5/15/2008	6.0	1.5	14.4	20.2	0.2	0	
6/27/2008	-	-	2.4	18.8	0.2	0	
7/18/2008	6.1	1.3	2.8	18.8	0.3	0	
8/14/2008	6.3	1.5	9.5	20.9	0.3	0	
9/10/2008	5.8	3.1	11.1	19.2	0.9	0	
10/8/2008	6.3	2.0	8.2	20.1	0.2	0	
11/5/2008	5.6	1.6	5.3	18.7	0.0	0	
12/3/2008	6.1	2.0	16.1	20.2	0.1	0	
1/21/2009 (5)	5.6	2.6	--	20.9	0.4	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	5.9	1.8	6.3	20.0	0.3	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

*Flow rate estimated based on difference between combined flow and measured flow readings.

TABLE 44
SVE-23
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-23						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	3.4	2.0	1.8	17.6	2.5	0	Exterior SVE system start up
1/24/2008	6.0	1.4	1.0	20.9	0.1	0	
2/26/2008	6.0	2.7	0.5	20.9	0.3	0	
3/26/2008	5.6	1.6	1.9	19.5	0.1	0	
4/18/2008	5.9	1.1	-	19.3	0.1	0	
5/15/2008	5.6	1.5	7.9	19.9	0.2	0	
6/27/2008	-	-	3.1	18.7	0.2	0	
7/18/2008	6.1	1.9	1.9	18.6	0.3	0	
8/14/2008	6.1	1.6	3.5	20.9	0.3	0	
9/10/2008	5.8	1.7	1.6	18.7	1.0	0	
10/8/2008	6.1	1.6	3.0	20.0	0.2	0	
11/5/2008	5.8	1.5	1.9	18.6	0.0	0	
12/3/2008	6.3	1.3	13.6	19.9	0.1	0	
1/21/2009 (5)	6.6	0.6	--	20.8	0.6	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	5.8	1.6	3.5	19.6	0.4	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 45
SVE-24
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-24						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	5.6	1.4	1.5	20.9	0.8	0	Exterior SVE system start up
1/24/2008	6.4	1.0	2.0	20.5	0.3	0	
2/26/2008	6.0	1.3	0.5	20.9	0.1	0	
3/26/2008	6.0	1.0	2.8	19.6	0.1	0	
4/18/2008	6.4	0.8	-	19.6	0.1	0	
5/15/2008	5.6	1.0	9.1	19.9	0.1	0	
6/27/2008	-	-	2.6	19.1	0.0	0	
7/18/2008	5.8	0.9	1.7	18.8	0.2	0	
8/14/2008	5.5	1.0	2.6	20.9	0.2	0	
9/10/2008	5.8	1.0	2.4	19.5	0.3	0	
10/8/2008	6.1	0.2	2.7	19.9	0.2	0	
11/5/2008	5.8	1.4	1.5	18.6	0.1	0	
12/3/2008	6.3	1.8	13.4	20.0	0.1	0	
1/21/2009 (5)	6.6	2.5	--	20.9	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.0	1.2	3.6	19.9	0.2	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 46
SVE-25
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-25						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	5.2	2.0	1.4	20.0	0.5	0	Exterior SVE system start up
1/24/2008	5.2	1.8	3.0	19.4	0.4	0	
2/26/2008	6.0	2.6	0.7	20.9	0.1	0	
3/26/2008	6.0	2.5	0.6	19.4	0.0	0	
4/18/2008	6.8	2.0	-	19.6	0.0	0	
5/15/2008	6.2	2.2	6.7	20.2	0.1	0	
6/27/2008	-	-	<0.1	19.0	0.1	0	
7/18/2008	6.6	1.7	0.5	18.9	0.1	0	
8/14/2008	6.1	1.9	<0.1	20.9	0.2	0	
9/10/2008	6.1	1.9	0.6	20.2	0.1	0	
10/8/2008	6.3	1.9	1.3	20.1	0.1	0	
11/5/2008	5.8	1.6	2.0	18.8	0.1	0	
12/3/2008	6.6	1.0	12.9	20.2	0.0	0	
1/21/2009 (5)	4.8	3.8	--	20.9	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.0	2.1	3.0	19.9	0.1	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 47
SVE-26
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-26						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	5.6	0.6	1.1	20.9	0.2	0	Exterior SVE system start up
1/24/2008	6.0	0.5	1.0	20.9	0.1	0	
2/26/2008	6.0	0.7	0.7	20.9	0.1	0	
3/26/2008	5.6	0.6	1.1	19.7	0.1	0	
4/18/2008	6.8	0.5	-	19.7	0.1	0	
5/15/2008	6.4	0.7	2.0	19.9	0.1	0	
6/27/2008	-	0.7	<0.1	18.9	0.1	0	
7/18/2008	6.1	1.6	0.7	18.8	0.1	0	
8/14/2008	5.5	0.4	<0.1	20.9	0.2	0	
9/10/2008	5.8	0.6	0.1	19.9	0.3	0	
10/8/2008	6.3	0.6	0.9	19.7	0.2	0	
11/5/2008	5.8	0.4	1.8	18.7	0.0	0	
12/3/2008	6.1	0.8	9.8	20.3	0.0	0	
1/21/2009 (5)	6.4	0.5	--	20.9	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.0	0.7	1.9	20.0	0.1	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 48
SVE-27
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-27						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	4.6	2.0	1.2	20.8	0.3	0	Exterior SVE system start up
1/24/2008	5.6	1.7	1.0	20.9	0.1	0	
2/26/2008	6.4	2.3	0.3	20.9	0.1	0	
3/26/2008	6.0	2.4	0.2	19.7	0.1	0	
4/18/2008	6.4	1.7	-	19.9	0.0	0	
5/15/2008	6.2	2.0	2.6	20.0	0.1	0	
6/27/2008	-	1.8	0.5	18.8	0.1	0	
7/18/2008	6.6	1.8	0.3	18.8	0.1	0	
8/14/2008	5.8	1.7	<0.1	20.9	0.2	0	
9/10/2008	6.3	1.6	<0.1	20.0	0.2	0	
10/8/2008	6.3	1.8	0.6	19.7	0.1	0	
11/5/2008	5.8	1.8	1.4	18.7	0.0	0	
12/3/2008	6.3	0.9	10.0	20.4	0.0	0	
1/21/2009 (5)	6.3	0.9	--	20.9	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	6.0	1.7	1.8	20.0	0.1	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 49
SVE-28
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-28						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	3.4	2.0	1.1	20.9	0.4	0	Exterior SVE system start up
1/24/2008	4.2	1.7	1.0	20.9	0.0	0	
2/26/2008	6.0	3.2	0.3	20.9	0.1	0	
3/26/2008	6.2*	3.2	0.2	19.7	0.0	0	
4/18/2008	3.4	2.6	-	19.9	0.0	0	
5/15/2008	6.3*	2.9	3.2	19.9	0.1	0	
6/27/2008	-	2.8	0.6	18.6	0.1	0	
7/18/2008	4.1*	2.6	0.5	18.9	0.1	0	
8/14/2008	5.2*	2.9	<0.1	20.9	0.1	0	
9/10/2008	5.4*	2.8	<0.1	19.9	0.2	0	
10/8/2008	5.1*	1.9	0.6	19.8	0.1	0	
11/5/2008	5.7*	1.7	0.9	18.6	0.1	0	
12/3/2008	5.0*	2.0	9.8	20.4	0.0	0	
1/21/2009 (5)	4.8	4.0	--	20.9	0.0	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	4.4	2.6	1.8	20.0	0.1	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

*Flow rate estimated based on difference between combined flow and measured flow readings.

TABLE 50
SVE-29
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-29						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	3.4	2.0	0.7	20.9	0.4	0	Exterior SVE system start up
1/24/2008	4.0	1.6	1.0	20.7	0.1	0	
2/26/2008	4.0	3.1	0.4	20.9	0.0	0	
3/26/2008	6.2*	3.0	0.2	19.7	0.0	0	
4/18/2008	5.2*	1.6	-	19.7	0.0	0	
5/15/2008	6.3*	2.9	2.6	19.9	0.1	0	
6/27/2008	-	2.7	0.5	18.7	0.1	0	
7/18/2008	4.1*	2.6	0.7	18.8	0.1	0	
8/14/2008	5.2*	2.9	<0.1	20.9	0.0	0	
9/10/2008	5.4*	2.8	<0.1	19.4	0.3	0	
10/8/2008	5.1*	2.0	0.8	19.6	0.1	0	
11/5/2008	5.2	1.6	0.3	18.8	0.0	0	
12/3/2008	5.0*	2.0	9.7	20.4	0.0	0	
1/21/2009 (5)	6.6	1.7	--	20.9	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	4.6	2.3	1.7	20.0	0.1	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 51
SVE-30
Summary of Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	SVE-30						
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	LEL (%)	Notes:
1/18/2008	4.2	2.0	0.6	20.9	0.4	0	Exterior SVE system start up
1/24/2008	5.2	1.6	2.0	20.6	0.2	0	
2/26/2008	6.0	2.1	0.4	20.9	0.1	0	
3/26/2008	6.2*	3.0	0.2	19.6	0.1	0	
4/18/2008	5.2*	2.4	-	19.7	0.0	0	
5/15/2008	6.3*	2.9	3.2	20.2	0.1	0	
6/27/2008	-	2.7	0.4	18.8	0.1	0	
7/18/2008	4.1*	2.6	0.5	18.7	0.1	0	
8/14/2008	5.2*	2.9	0.1	20.9	0.1	0	
9/10/2008	5.4*	2.8	<0.1	19.9	0.2	0	
10/8/2008	5.1*	1.9	0.8	19.7	0.1	0	
11/5/2008	5.7*	1.7	0.1	18.6	0.2	0	
12/3/2008	5.0*	2.0	9.0	20.4	0.0	0	
1/21/2009 (5)	4.8	4.0	--	20.9	0.1	0	

Date	Average					Total Run Time (days)
	Flow (cfm)	Vacuum (in H_2O)	TVOC (1) (ppm)	O_2 (%)	CO_2 (%)	
1/18/08 - 1/21/09	5.1	2.5	1.6	20.0	0.1	346

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

*Flow rate estimated based on difference between combined flow and measured flow readings.

TABLE 52

Summary of Combined Interior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	Total Comb. Flow		Effluent	
	Flow (cfm)	Vacuum (in H2O)	TVOC (ppmv)	Notes
1/18/2008	155	25.6	<0.1	*Interior SVE system start up*
1/24/2008	174	26.4	<0.1	
2/26/2008	161	27.3	<0.1	
3/26/2008	150	41.4	<0.1	
4/18/2008	140	44.7	2.0	
5/15/2008	158	23.1	<0.1	
6/27/2008	169	26.4	<0.1	
7/18/2008	170	25.9	0.5	
8/14/2008	171	26.9	2.0	
9/10/2008	168	28.8	0.7	
10/8/2008	171	29.1	0.6	
11/5/2008	167	29.3	1.9	
12/3/2008	158	31.7	9.3	
1/21/2009	167	33.3	--	

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume tovolume basis (ppmv). TVOC concentrations were determined using a Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor. of a 2 inch diameter pipe and V is the velocity measured in the pipe (see note 4).
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 53

Summary of Combined Exterior Soil Vapor Extraction Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	Total Comb. Flow		Effluent	
	Flow (cfm)	Vacuum (in H2O)	TVOC (ppmv)	Notes
1/18/2008	59	13.6	<0.1	Exterior SVE system start up
1/24/2008	74	13.3	<0.1	
2/26/2008	82	14.4	<0.1	
3/26/2008	80	18.9	<0.1	
4/18/2008	85	14.3	2.0	
5/15/2008	85	14.8	<0.1	
6/27/2008	-	14.2	<0.1	
7/18/2008	80	13.9	1.9	
8/14/2008	80	14.7	3.9	
9/10/2008	80	14.9	4.1	
10/8/2008	80	14.5	1.1	
11/5/2008	80	14.1	3.0	
12/3/2008	80	14.4	--	
1/21/2009	79.0	15.3	--	

Notes:

1. TVOC means Total Volatile Organic Compounds. Readings are in parts per million on volume to volume basis (ppmv). TVOC concentrations were determined using a Photoionization Photoionization Detector (PID), equipped with a 10.6 ev lamp.
2. O_2, CO_2, LEL, CH_4 measurements were determined using a LANDTEC GA90 - Infrared gas analyzer
3. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
4. "-" means not monitored
5. TVOC reading not collected on 1/21/2009 due to equipment failure.

TABLE 54

Summary of Interior Air Sparge Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	AS-1			AS-2			AS-3			AS-4			AS-5			AS-6			AS-7			AS-8			AS-9		
	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)
1/24/2008	6	0.3	0.6	6	0.7	1.2	6	0.4	1.0	7	0.5	1.0	7	0.5	1.0	7	0.5	1.0	7	0.6	1.1	7	0.7	1.2	7	0.1	0.3
2/26/2008	7	1.0	1.4	7	1.0	1.4	7	0.9	1.4	8	0.9	1.4	8	1.1	1.5	8	0.9	1.4	8	0.9	1.4	8	1.1	1.5	8	1.0	1.0
3/26/2008	8	1.2	1.6	8	1.1	1.6	8	1.1	1.6	10	1.1	1.6	10	1.2	1.7	10	1.2	1.7	9	1.1	1.6	9	1.3	1.7	9	1.2	1.7
4/18/2008	10	3.9	3.0	10	3.7	2.9	10	3.3	2.8	11	3.3	2.9	11	3.7	3.0	11	3.3	2.9	10	3.4	2.8	10	3.5	2.9	10	3.2	2.7
5/15/2008	10	3.1	2.7	10	3.2	2.8	10	3.3	2.8	10	3.1	2.7	10	3.2	2.8	10	3.4	2.8	10	3.3	2.8	10	3.4	2.8	10	3.1	2.7
6/27/2008	9	2.7	2.5	9	2.9	2.6	9	2.6	2.4	10	2.7	2.5	10	2.8	2.5	10	2.7	2.5	10	2.8	2.6	10	2.6	2.5	10	2.7	2.5
7/18/2008	9	3.3	2.8	9	3.4	2.8	9	3.2	2.7	10	3.2	2.8	10	3.6	2.9	10	3.3	2.8	10	3.2	2.8	10	3.1	2.7	10	3.3	2.8
8/14/2008	10	3.3	2.9	10	3.1	2.7	10	3.1	2.7	12	3.1	2.7	10	3.2	2.8	10	3.4	2.8	10	3.1	2.7	10	3.2	2.8	10	3.4	2.8
9/10/2008	11	2.9	2.8	11	2.8	2.7	11	2.9	2.8	12	2.8	2.7	12	2.9	2.8	12	2.9	2.8	12	2.8	2.7	12	2.9	2.8	12	2.9	2.8
10/8/2008	12	2.6	2.6	12	2.6	2.6	12	2.6	2.6	12	2.6	2.6	12	2.7	2.7	12	2.6	2.6	12	2.6	2.6	12	2.4	2.5	12	2.4	2.5
11/5/2008	10	2.4	2.4	10	2.5	2.4	10	2.3	2.3	12	2.4	2.5	12	2.6	2.6	12	2.4	2.5	12	2.5	2..5	12	2.5	2.5	12	2.4	2.5
12/3/2008	13	2.3	2.5	13	2.2	2.4	13	2.2	2.4	12	2.3	2.4	12	2.3	2.4	12	2.3	2.4	13	2.3	2.5	13	2.1	2.3	13	2.3	2.5
1/21/2009	14	2.0	2.3	14	2.0	2.3	14	2.2	2.4	15	2.0	2.4	15	2.3	2.6	15	2.1	2.4	15	2.1	2.4	15	2.1	2.4	15	2.2	2.5

Date	AS-10			AS-11			AS-12			AS-13			AS-14			AS-15			AS-16			Combine		
	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)
1/24/2008	6	0.5	1.0	6	0.6	1.0	6	0.1	0.3	7	0.8	1.4	7	0.6	1.1	6	0.6	1.1	7	0.7	1.2	9	4.0	21.0
2/26/2008	7	1.0	1.4	7	0.9	1.3	7	1.0	1.4	8	0.5	1.1	8	0.9	1.4	8	0.9	1.4	8	1.0	1.0	10	4.9	24.0
3/26/2008	8	1.2	1.6	8	1.2	1.6	8	1.2	1.6	9	1.1	1.6	9	0.9	1.4	8	1.1	1.6	8	1.2	1.6	11	6.4	26.5
4/18/2008	9	3.3	2.6	9	3.7	2.9	9	3.2	2.7	9	2.4	2.3	9	3.6	2.7	10	3.2	2.7	10	3.7	2.9	14	17.0	44.7
5/15/2008	9	3.2	2.7	9	3.3	2.7	9	3.1	2.6	10	3.2	2.8	10	3.5	2.9	10	3.3	2.8	10	3.2	2.7	14	18.4	44.1
6/27/2008	8	2.7	2.4	8	2.6	2.4	8	2.7	2.4	9	2.8	2.4	9	2.6	2.5	9	2.7	2.5	10	2.7	2.5	14	17.5	39.5
7/18/2008	8	2.3	2.3	8	3.4	2.8	8	3.3	2.7	9	3.3	2.7	9	3.4	2.8	10	3.3	2.8	10	3.6	2.9	14	18.6	43.9
8/14/2008	9	3.2	2.7	9	3.4	2.8	9	3.5	2.8	9	3.1	2.6	9	3.4	2.8	10	3.4	2.8	12	3.4	3.0	14	18.2	44.2
9/10/2008	10	2.3	2.6	10	2.8	2.6	10	2.7	2.6	9	2.8	2.6	9	2.7	2.5	10	2.8	2.6	11	2.8	2.7	15	15.8	42.7
10/8/2008	11	2.7	2.6	11	2.7	2.6	11	2.6	2.5	9	2.5	2.4	9	2.5	2.4	11	2.5	2.4	12	2.6	2.6	15	13.2	40.8
11/5/2008	10	2.4	2.4	10	2.5	2.4	10	2.4	2.4	9	2.4	2.3	9	2.5	2.4	11	2.4	2.4	11	2.4	2.4	14	12.6	38.9
12/3/2008	12	2.2	2.3	12	2.2	2.3	12	2.3	2.4	9	2.2	2.2	9	2.5	2.3	12	2.2	2.3	13	2.2	2.4	12	12.3	38.0
1/21/2009	14	2.2	2.4	14	2.2	2.4	14	2.1	2.4	14	2.0	2.3	14	2.3	2.5	15	2.2	2.5	15	2.1	2.4	11	11.4	39.0

Notes:

1. Flow measurements were determined using a "Pitot tube DS-300 Flow Sensor.
2. "-" means not monitored

TABLE 55

Summary of Exterior Air Sparge Monitoring
January 2008 through January 2009

Charbert Facility
Alton, Rhode Island

Date	AS-17			AS-18			AS-19			AS-20			AS-21			AS-22			AS-23			AS-24		
	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)
1/24/2008	11	1.3	1.8	11	1.1	1.6	11	1.3	1.8	11	1.2	1.6	9	1.3	1.8	9	0.8	1.4	9	0.6	1.2	9	1.4	1.8
2/26/2008	11	1.3	1.8	11	1.2	1.7	11	1.3	1.8	11	1.4	1.8	10	1.3	1.7	10	1.4	1.8	10	1.3	1.7	10	1.4	1.8
3/26/2008	12	0.9	1.5	12	0.9	1.5	12	1.0	1.6	12	1.1	1.7	10	1.0	1.5	10	0.9	1.5	10	1.0	1.6	10	1.1	1.6
4/18/2008	12	3.0	2.7	12	2.7	2.6	12	2.8	2.7	12	1.6	2.6	10	2.7	2.7	10	2.8	2.6	10	3.0	2.7	10	2.9	2.6
5/15/2008	12	2.4	2.5	12	2.4	2.5	12	2.5	2.5	12	2.6	2.6	10	2.5	2.4	10	2.6	2.5	10	2.7	2.5	10	2.6	2.4
6/27/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/18/2008	10	2.4	2.4	10	2.6	2.5	10	2.7	2.6	10	2.6	2.5	10	2.8	2.6	10	2.4	2.4	10	2.5	2.6	10	2.5	2.6
8/14/2008	12	2.6	2.6	12	2.6	2.6	12	2.8	2.7	12	2.7	2.7	10	2.5	2.5	10	2.6	2.5	10	2.6	2.5	10	2.6	2.5
9/10/2008	12	2.5	2.5	12	2.5	2.5	12	2.5	2.5	12	2.5	2.5	11	2.5	2.5	11	2.6	2.6	11	2.5	2.5	11	2.6	2.6
10/8/2008	14	2.3	2.5	14	2.2	2.4	14	2.3	2.5	14	2.3	2.5	10	2.4	2.4	10	2.3	2.3	10	2.2	2.3	10	2.4	2.4
11/5/2008	12	2.4	2.5	12	2.5	2.5	12	2.6	2.6	12	2.6	2.6	10	2.6	2.5	10	2.6	2.5	10	2.5	2.4	10	2.5	2.4
12/3/2008	12	2.7	2.7	12	2.7	2.7	12	2.7	2.7	12	2.7	2.7	10	2.7	2.5	10	2.8	2.6	10	2.7	2.5	10	2.7	2.5
1/21/2009	14	3.1	2.9	14	3.0	2.8	14	3.0	2.8	14	3.2	3.0	11	3.0	2.7	11	2.8	2.6	11	3.1	2.8	11	29.0	2.7

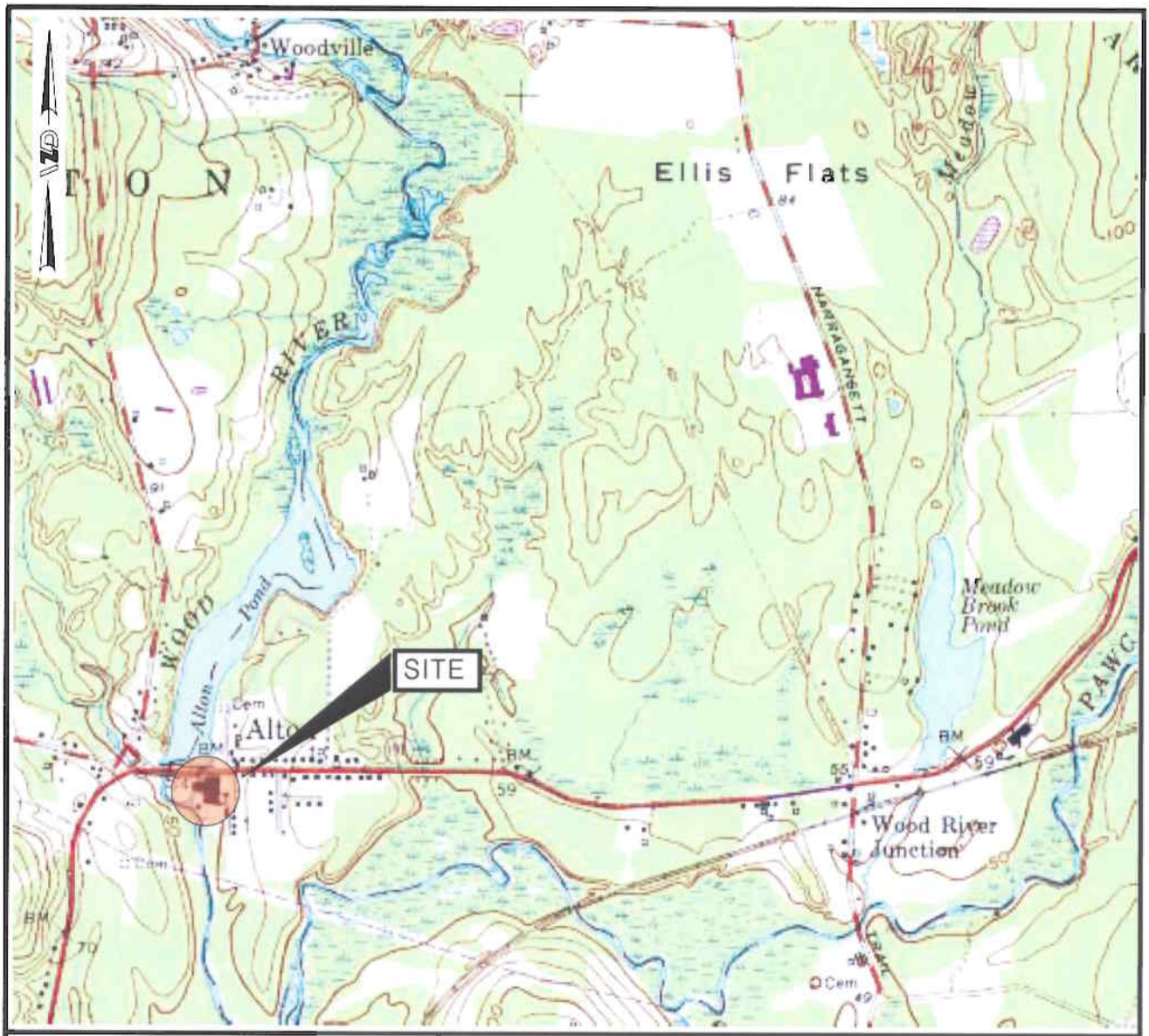
Date	AS-25			AS-26			AS-27			AS-28			AS-29			AS-30			Combine		
	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)	Pressure (psi)	Diff Pressure (in of water)	Flow (ft^3/min)
1/24/2008	9	1.0	1.5	9	1.4	1.8	9	1.2	1.6	9	1.3	1.8	9	1.4	1.8	9	0.7	1.3	12	5.0	24.0
2/26/2008	10	1.4	1.8	10	0.6	1.2	10	1.3	1.8	10	1.3	1.8	10	1.2	1.7	10	0.9	1.5	13	4.7	24.0
3/26/2008	10	1.1	1.6	10	0.3	0.8	10	1.0	1.6	10	1.1	1.6	10	1.0	1.5	10	1.0	1.5	11	3.9	21.0
4/18/2008	10	3.0	2.7	10	2.6	2.4	10	2.9	2.6	10	2.6	2.4	10	2.8	2.6	10	2.7	2.5	16	--	36.4
5/15/2008	10	2.4	2.3	10	2.6	2.4	10	2.6	2.4	10	2.3	2.3	10	2.5	2.4	10	2.4	2.4	16	11.0	34.1
6/27/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/18/2008	10	2.8	2.6	10	2.7	2.6	10	2.6	2.5	10	2.8	2.6	10	2.7	2.6	10	2.6	2.5	16	16.0	35.4
8/14/2008	10	2.4	2.4	10	2.5	2.5	10	2.7	2.6	10	2.6	2.5	10	2.7	2.6	10	2.6	2.5	11	16.0	35.4
9/10/2008	11	2.5	2.5	12	2.5	2.5	12	2.5	2.5	12	2.6	2.6	12	2.5	2.5	12	2.4	2.5	17	--	35.1
10/8/2008	10	2.4	2.4	11	2.2	2.3	11	2.2	2.3	11	2.3	2.4	11	2.3	2.4	11	2.3	2.4	17	11.5	33.5
11/5/2008	10	2.7	2.6	10	2..5	2.4	10	2.5	2.4	10	2.6	2.5	10	2.7	2.6	10	2.6	2.5	16	11.8	35.0
12/3/2008	10	2.7	2.5	10	2.7	2.5	10	2.8	2.6	10	2.7	2.5	10	2.8	2.6	10	2.6	2.4	18	14.6	36.0
1/21/2009	11	3.2	2.8	12	3.2	2.8	12	2.9	2.7	12	3.0	2.8	12	3.0	2.8	12	3.0	2.8	18	13.7	39.0

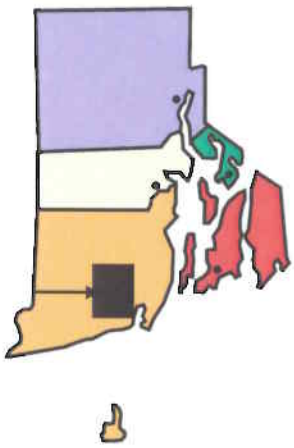
TABLE 56
SOIL VAPOR EXTRACTION & AIR SPARGE OPERATIONS LOG

CHARBERT FACILITY
Alton, Rhode Island

Date	Personnel	Company (GZA/Charbert)	Interior SVE System		Exterior SVE System		Interior SVE			Exterior SVE			Combine Pressure AS		SVE Condensate Collection		Notes
			On (yes/no)	Operation (cont./hr)	On (yes/no)	Operation (cont./hr)	5 Hp hr meter (hrs)	Vac. (DH) in. of H_2O	Flow (scfm)	1 Hp hr meter (hrs)	Vac. (DH) in. of H_2O	Flow (scfm)	Interior (psi)	Exterior (psi)	Interior (yes/no/gal)	Exterior (yes/no/gal)	
2/27/2008	AH	GZA	Y	C	Y	C	967	22	157	985	10	82	10	13	No	No	
3/20/2008	AH	GZA															Compressor not operating due to change out. Rescheduled monitoring.
3/26/2008	AH	GZA															Interior SVE system shut down twice during visit due to impoper installation of thermal overlaod on 5HP blower. Advised by A. Flori to shut down interior AS. Parts ordered. Systems restarted next day. Rescheduled SVE monitoring.
3/28/2008	AH	GZA	Y	C	Y	C	1640	25	157	1657	11	80	11	13	No	No	Completed SVE monitoring.
4/18/2008	AH	GZA	Y	C	Y	C	2163	36	140	2208	8	85	14	16	No	Slight	
4/22/2008	AH	GZA															Collected air samples from interior and exterior SVE exhaust sampling ports.
5/15/2008	AH/AF	GZA	Y	C	Y	C	2810	17	175	2856	9	85	14	16	No	No	Purged interior SVE system.
6/27/2008	AH	GZA	Y	C	Y	C	3842	18	157	3888	9	80	14	16	Slight	Slight	Crane on site. Instructed to complete exterior work quickly. Exterior SVE and AS systems not balanced, per discussion with AF.
7/18/2008	AH	GZA	Y	C	Y	C	4345	19	157	4391	8	80	14	16	Slight	Slight	Noisy coupling at AS 10, 11 and 12.
8/14/2008	AH	GZA	Y	C	Y	C	4993	19	155	5025	10	80	14	16	Slight	Slight	
9/3/2008	AH	GZA															Collected air samples from interior and exterior SVE exhaust sampling ports.
9/10/2008	AH	GZA	Y	C	Y	C	5641	20	155	5641	10	80	0	0	No	Slight	Blower was not running. System was restarted by Vic Brown.
10/8/2008	AH	GZA	Y	C	Y	C	6314	22	155	6314	10	80	15	17	Slight	Slight	
11/5/2008	AH	GZA	Y	C	Y	C	6986	25	155	6986	10	80	14	16	No	No	
12/3/2008	AH	GZA	Y	C	Y	C	7658	23	155	7658	11	80	16	18	No	No	
12/15/2008	SA	GZA															Exterior SVE and blower shut down due to high water table (heavy rain Dec. 11 & 12).
1/6/2009	SA	GZA	Y	C	N		8474			7910			0	0			Exterior SVE and blower restarted by Steve Andrus.
1/21/2009	AH	GZA	Y	C	Y	C	8833	24	155	8269	9	80	18	18	No	No	Cleaned the in-line filters for both SVE systems.

FIGURES





FROM USGS PROVIDENCE, RI QUADRANGLE MAP

(DIGITAL TOPOGRAPHIC MAPS PROVIDED BY MAPTECH, INC.)

(CONTOUR ELEVATIONS ARE IN METERS ABOVE NGVD, AT 3 METER INTERVALS)

APPROXIMATE SCALE IN FEET

0' 1200' 2400' 4800'

CHARBERT FACILITY

ALTON
RHODE ISLAND

LOCUS PLAN

JANUARY 2005

FIGURE NO. 1

FILE NO. 32795.00

(COREL FILE: G:\JOBS\ENV\32795\EAS\LOCUS.CDR)

LEGEND

- 200 FT. RIVER BANK BUFFER
- 50 FT. WETLAND BUFFER
- SEWER LINE
- INDUSTRIAL WASTEWATER LINE
- UNDERGROUND ELECTRICAL LINE
- STORM WATER DRAINAGE LINE
- OIL LINE
- EXISTING SEWER FORCE MAIN
- OVERHEAD UTILITY
- FEMA 100 FLOOD LEVEL
- POST INDICATOR VALVE
- FIRE HYDRANT
- UTILITY POLE
- CHAIN LINK FENCE
- EXISTING SURFACE CONTOURS
- EDGE OF RIVER

- DB-5 — PREVIOUS DIFFUSION BAG MONITORING LOCATION
- DB-5 — PROPOSED DIFFUSION BAG MONITORING LOCATION
- UIC MW-4A — EXISTING UIC PROGRAM GROUNDWATER MONITORING WELL
- GZ-ML-1 — EXISTING MULTI-LEVEL BEDROCK MONITORING WELL
- GZ-21 — ICMP GROUNDWATER MONITORING WELL
- RIZ-14 — PERIMETER GROUNDWATER MONITORING WELL
- RIZ-3 — EXISTING GROUNDWATER MONITORING WELL
- RIZ-14 — EXISTING EXTRACTION WELL
- INFERRED GROUNDWATER FLOW DIRECTION BASED ON SIR GROUNDWATER CONTOUR PLANS

- AS-3 — AS-BUILT LOCATION OF AIR SPARGE WELL
- SVE-3 — AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION WELL
- SSVW-4 — AS-BUILT LOCATION OF SUB-SLAB VENT
- SVE-18 — AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION TRENCH

RESIDENTIAL WELLS		
LOCATION	WELL WATER SAMPLING FREQUENCY	TAP WATER SAMPLING FREQUENCY
14 RIVER STREET	YEARLY	QUARTERLY
16 RIVER STREET	YEARLY	QUARTERLY
18 RIVER STREET	YEARLY	QUARTERLY

UIC WELLS	
LOCATION	SAMPLING FREQUENCY
UIC-MW1A	QUARTERLY
UIC-MW2A	QUARTERLY
UIC-MW3	QUARTERLY
UIC-MW4A	QUARTERLY
UIC-MW5B	QUARTERLY
UIC-MW6	QUARTERLY

ICMP WELLS	
LOCATION	SAMPLING FREQUENCY
RIZ-1	YEARLY
RIZ-6	YEARLY
RIZ-13	QUARTERLY
GZ-3	QUARTERLY
GP-26	QUARTERLY
GZ-7	QUARTERLY
RIZ-7	QUARTERLY
GZ-19	QUARTERLY
RIZ-5	QUARTERLY
GZ-20	QUARTERLY
GP-28	QUARTERLY
GZ-21	QUARTERLY
GZ-22	QUARTERLY
GZ-23	QUARTERLY

PERIMETER WELLS	
LOCATION	SAMPLING FREQUENCY
RIZ-1	QUARTERLY
RIZ-14	QUARTERLY
RIZ-21	QUARTERLY
GP-22	QUARTERLY
GZ-2	QUARTERLY

GZA

GENERAL NOTES

1 BASE MAP DEVELOPED FROM ELECTRONIC CAD FILES PROVIDED BY AEROTECH INTERNATIONAL DIGITAL PHOTOGRAMMETRIC MAPPING DATED 12-01-04, DATE FLOWN MARCH 26, 1999. THE TOPOGRAPHY OF THE LAGOONS, THE 1998, 2001 AND 2004 SOIL STOCK PILES WERE UPDATED BY INSTRUMENT SURVEY CONDUCTED BY GZA PERSONNEL IN SEPTEMBER 2004 THROUGH FEBRUARY 2005.

2 THE LOCATIONS AND ELEVATIONS OF MONITORING WELLS AND EXPLORATIONS WERE APPROXIMATELY DETERMINED BY SURVEY. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

J:\ENV\32795-31.ama\Jan 09\32795-31 ANNUAL ICMP.dwg [ICMP FIG-2] April 27, 2009 - 3:21pm stephen.andrus

REV. NO.	DESCRIPTION	BY	DATE

SCALE: 1" = 80'
0 40 80 160

GZA GeoEnvironmental, Inc.
Engineers and Scientists
55 BROADWAY
PROVIDENCE, RHODE ISLAND 02909
(401) 421-4140
(401) 751-4613

PROJ MGR: SMA
DESIGNED BY:
REVIEWED BY: EAS
OPERATOR: SMA
CHECKER: ALF
DATE: MARCH 2009

CHARBERT FACILITY
ALTON, RHODE ISLAND

ANNUAL INTERIM COMPLIANCE MONITORING REPORT
SITE PLAN AND MONITORING WELL LOCATIONS

PROJECT NO.
32795.31

FIGURE NO.
2


LEGEND
200 FT. RIVER BANK BUFFER
50 FT. WETLAND BUFFER
SEWER LINE
INDUSTRIAL WASTEWATER LINE
UNDERGROUND ELECTRICAL LINE
STORM WATER DRAINAGE LINE
OIL LINE
EXISTING SEWER FORCE MAIN
OVERHEAD UTILITY
FEMA 100 FLOOD LEVEL
POST INDICATOR VALVE
FIRE HYDRANT
UTILITY POLE
CHAIN LINK FENCE
EXISTING SURFACE CONTOURS
EDGE OF RIVER
DB-5 PREVIOUS DIFFUSION BAG MONITORING LOCATION
DB-5 PROPOSED DIFFUSION BAG MONITORING LOCATION
UIC MW-4A EXISTING UIC PROGRAM GROUNDWATER MONITORING WELL
GZ-ML-1 EXISTING MULTI-LEVEL BEDROCK MONITORING WELL
GZ-21 ICMP GROUNDWATER MONITORING WELL
RIZ-14 PERIMETER GROUNDWATER MONITORING WELL
RIZ-3 EXISTING GROUNDWATER MONITORING WELL
EW-2 EXISTING EXTRACTION WELL
INFERRED GROUNDWATER FLOW DIRECTION BASED ON SIR GROUNDWATER CONTOUR PLANS
AS-3 AS-BUILT LOCATION OF AIR SPARGE WELL
SVE-3 AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION WELL
SSVW-4 AS-BUILT LOCATION OF SUB-SLAB VENT
SVE-18 AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION TRENCH
FORMER (LAGOON 5)
PASSIVE PETROLEUM COLLECTION SUMP
CHARBERT MILL BUILDING
LOCATION OF BLOWERS, AIR DRYERS AND CARBON DRUMS FOR INTERIOR AND EXTERIOR SOIL VAPOR EXTRACTION SYSTEMS AND AIR COMPRESSOR FOR INTERIOR AND EXTERIOR SPARGE SYSTEMS
WATER TOWER
INDUSTRIAL WASTE PUMP HOUSE
50' WETLANDS OFFSET
OIL BUNKER
RIVER EDGE
WETLANDS BOUNDARY
DRUM STORAGE AREA
FEMA 100-YEAR FLOOD BOUNDARY
FIBER OPTIC LINE
200' RIVER OFFSET
DRILL HOLE FOUND ELEV.: 54.53
AS-BUILT LOCATION OF NEW LEACHING SYSTEM
CHARBERT EMPLOYEE PARKING LOT
PRIVATE WELL-16 RIVER STREET
PRIVATE WELL-14 RIVER STREET
#18
#16
#14
#12
#10
GENERAL NOTES
1 BASE MAP DEVELOPED FROM ELECTRONIC CAD FILES PROVIDED BY AEROTECH INTERNATIONAL DIGITAL PHOTOGRAMMETRIC MAPPING DATED 12-01-04, DATE FLOWN MARCH 26, 1999. THE TOPOGRAPHY OF THE LAGOONS, THE 1998, 2001 AND 2004 SOIL STOCK PILES WERE UPDATED BY INSTRUMENT SURVEY CONDUCTED BY GZA PERSONNEL IN SEPTEMBER 2004 THROUGH FEBRUARY 2005.
2 THE LOCATIONS AND ELEVATIONS OF MONITORING WELLS AND EXPLORATIONS WERE APPROXIMATELY DETERMINED BY SURVEY. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
©2009 - GZA GeoEnvironmental, Inc. - 32795.31
J:\ENV\32795-31.smo\Jon 09\32795-31 ANNUAL ICMP.dwg [ICMP FIG-3] April 27, 2009 - 3:22pm stephen.andrus
REV. NO. DESCRIPTION BY DATE
SCALE: 1" = 40'
GZA GeoEnvironmental, Inc. Engineers and Scientists
530 BROADWAY PROVIDENCE, RHODE ISLAND 02909
PROJ MGR: SMA
DESIGNED BY:
REVIEWED BY: EAS
OPERATOR: SMA
CHECKER: ALF
DATE: MARCH 2009
CHARBERT FACILITY
ALTON, RHODE ISLAND
ANNUAL INTERUM COMPLIANCE MONITORING REPORT
AIR SPARGE AND SOIL VAPOR EXTRACTION WELL LOCATIONS
PROJECT NO. 32795.31
FIGURE NO. 3

APPENDIX A

LIMITATIONS

LIMITATIONS

1. This Monitoring Report was prepared on behalf of and for the exclusive use of Alexion Pharmaceuticals, Inc. The Report and the findings presented in the Report shall not, in whole or in part, be disseminated or conveyed to any other party, or used or relied upon by any other party, in whole or in part without the written consent of GZA; although we agree that the information presented herein will be provided to the Town of Smithfield Sewer Authority.

2. The work contained in this report was performed in accordance with practices and standard of care typically exercised by members of our profession at the time of our study and under conditions similar to those we encountered while performing our study.

3. The observations described in this Report were made under the conditions stated herein. The conclusions presented in the Report were based solely upon the services described, and not on scientific tasks or procedures beyond the scope of described services or the time and budgetary constraints imposed by Client.

4. In preparing this Report, GZA has relied on certain information provided by federal, state or local officials and other parties referenced herein, and on information contained in the files of federal, state, and/or local agencies available to GZA at the time of our services. Unless otherwise stated, GZA did not attempt to independently verify the accuracy or completeness of information reviewed or received during the course of the work.

5. As noted within the text of the report, quantitative laboratory testing was performed by the Client's contracted laboratory. GZA has relied upon the data provided, and has not conducted an independent evaluation of the reliability of these data.

6. The findings and conclusions provided in this Report are based on information made available to GZA and observations made while conducting the prescribed Scope of Work. Site conditions in many of the elements are subject to change, so conditions at any given time could differ from the conditions described in the report.

APPENDIX B

LABORATORY CERTIFICATES OF ANALYSIS

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA and ME: **MA092** NH: **2028**
CT: **PH0579** RI: **LAO00236**
NELAC - NYS DOH: **11063**

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project No.: **03.0032795.31**
Work Order No.: **0901-00026**
Date Received: **01/07/2009**
Date Reported: **01/12/2009**

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
01/05/2009	Aqueous	0901-00026 001	GZ-21
01/05/2009	Aqueous	0901-00026 002	GZ-22
01/05/2009	Aqueous	0901-00026 003	GZ-23
01/05/2009	Aqueous	0901-00026 004	GZ-19
01/05/2009	Aqueous	0901-00026 005	RIZ-7
01/05/2009	Aqueous	0901-00026 006	GZ-20
01/05/2009	Aqueous	0901-00026 007	RIZ-5
01/05/2009	Aqueous	0901-00026 008	GP-28
01/05/2009	Aqueous	0901-00026 009	RIZ-6
01/05/2009	Aqueous	0901-00026 010	GZ-7
01/05/2009	Aqueous	0901-00026 011	GP-26
01/06/2009	Aqueous	0901-00026 012	GZ-3
01/06/2009	Aqueous	0901-00026 013	RIZ-13
01/06/2009	Aqueous	0901-00026 014	GZ-101
01/05/2009	Aqueous	0901-00026 015	TBLK 010509
01/06/2009	Aqueous	0901-00026 016	RIZ-1

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 01/07/09 via _x_GZA courier, __EC, __FEDEX, or ___hand delivered. The temperature of the _x_temperature blank/__cooler air, was 4.2 & 3.7 degrees C. The temperature requirement for most analyses is above freezing to 6 degrees C. The samples were received intact for all requested analyses.

The chain of custody indicates that the samples, when required, were chemically preserved in accordance with the method they reference.

2. EPA Method 8260 - VOCs

The continuing calibration verification standard (CCV) (01/08/09) had an analyte outside of the 30%D QC acceptance limit. The outlier includes dichlorodifluoromethane (37%).

The Laboratory Control Sample (LCS) (01/08/09 S) had an 8260 list analyte outside of the 70-130% QC acceptance limits. Specific outlier includes dichlorodifluoromethane (137%). This analyte was not detected in the associated samples.

The continuing calibration verification standard (CCV) (01/09/09) had analytes outside of the 30%D QC acceptance limit. The outliers include dichlorodifluoromethane (39%) and 2-hexanone (31%).

The Laboratory Control Sample (LCS) (01/09/08 S) had 8260 list analytes outside of the 70-130% QC acceptance limits. Specific outliers include dichlorodifluoromethane (139%) and 2-hexanone (131%). These analytes were not detected in the associated samples.

The percent recoveries for the surrogates in the diluted runs are as follows:

GZ-101: 1,2- Dichloroethane-D4 - 88.3%, Toluene-D8 - 102%, 4-Bromofluorobenzene - 102%

The elevated reporting limits for samples GZ-19 (0901-26-004), GZ-20 (0901-26-006), GP-26 (0901-26-011) and GZ-3 (0901-26-012) are due to initial dilution of the samples in order to get target compounds within the calibration range of the instrument. The dilutions were based upon historical data for the samples.

Sample GP-28 (0901-26-008) required a 1/50 dilution in order to get the target anlalytes within the calibration range of the instrument.

Attach QC 8260 01/08/09 S - Aqueous
Attach QC 8260 01/09/09 S - Aqueous

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.:	**Charbert**	Date Received:	**01/07/2009**
		Date Reported:	**01/12/2009**
Project No.:	**03.0032795.31**	Work Order No.:	**0901-00026**

Data Authorized By: _____

NELAC certification, as indicated by the NELAC Lab ID Number, is per analyte. For a complete list of NELAC validated analytes, please contact the laboratory.

Abbreviations:
% R = % Recovery
DF = Dilution Factor
DFS = Dilution Factor Solids
CF = Calculation Factor
DO = Diluted Out

Method Key:
Method 8260: The current version of the method is 8260B.
Method 8270: The current version of the method is 8270D.
Method 6010: The current version of the method is 6010B.

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

Soil data is reported on a dry weight basis unless otherwise specified.
Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-21** Sample No.: **001**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	2.3	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	1.7	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	1.7	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	6.2	ug/L	MQS	01/08/2009

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-21** Sample No.: **001**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	93.1	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		<200	ug/L	RJD	01/08/2009

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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-21** Sample No.: **001**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		67.4	% R	RJD	01/08/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-22** Sample No.: **002**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	28	ug/L	MQS	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
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Work Order No.: **0901-00026**

Sample ID: **GZ-22** Sample No.: **002**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	92.8	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	100	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009

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Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-23** Sample No.: **003**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	1.4	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	2.0	ug/L	MQS	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
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Work Order No.: **0901-00026**

Sample ID: **GZ-23** Sample No.: **003**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	90.0	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	100	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		<200	ug/L	RJD	01/08/2009

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Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-23** Sample No.: **003**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		73.5	% R	RJD	01/08/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Work Order No.: **0901-00026**

Sample ID: **GZ-19** Sample No.: **004**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<500	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<500	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	<250	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<500	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<250	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<500	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<1300	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<6300	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<250	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<500	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<250	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<250	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<6300	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<250	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	<250	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<250	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<250	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<2500	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<250	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<250	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<250	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<250	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<250	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<250	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<250	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<6300	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<250	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<250	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<500	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<250	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<6300	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<250	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	8400	ug/L	MQS	01/08/2009

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ANALYTICAL REPORT

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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

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Work Order No.: **0901-00026**

Sample ID: **GZ-19** Sample No.: **004**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<500	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<250	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<500	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<250	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<250	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<500	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<250	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<250	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<1300	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<250	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<500	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<250	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	88.0	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	100	% R	MQS	01/08/2009
Preparation	EPA 5030B	250	CF	MQS	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

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Work Order No.: **0901-00026**

Sample ID: **RIZ-7** Sample No.: **005**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	130	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	3.6	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	100	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009

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Project Name.: **Charbert**
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Sample ID: **RIZ-7** Sample No.: **005**
Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	1.3	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	3.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	86.9	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	99.2	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		570	ug/L	RJD	01/09/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-7** Sample No.: **005**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		118	% R	RJD	01/09/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Date Received: **01/07/2009**
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Sample ID: **GZ-20** Sample No.: **006**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<10	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<10	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	35	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<10	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<10	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<25	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<130	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<10	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<130	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	500	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<50	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	400	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<130	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<130	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	880	ug/L	MQS	01/08/2009

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Work Order No.: **0901-00026**

Sample ID: **GZ-20** Sample No.: **006**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<10	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<10	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<10	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<25	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<10	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	88.9	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/08/2009
Preparation	EPA 5030B	5.0	CF	MQS	01/08/2009

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Work Order No.: **0901-00026**

Sample ID: **RIZ-5** Sample No.: **007**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	1.9	ug/L	MQS	01/08/2009

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106 South Street
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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-5** Sample No.: **007**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	91.1	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	100	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		<200	ug/L	RJD	01/09/2009

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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-5** Sample No.: **007**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		89.1	% R	RJD	01/09/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GP-28** Sample No.: **008**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<50	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<50	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	140	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<50	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<25	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<50	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<130	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<630	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<25	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<50	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<25	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	<25	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<630	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	940	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<25	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<25	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<250	ug/L	MQS	01/09/2009
1,1,1-Trichloroethane	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<25	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<25	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<25	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<25	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	350	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<25	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<25	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<25	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<630	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<25	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<25	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<50	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<25	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<630	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<25	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	2900	ug/L	MQS	01/09/2009

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Work Order No.: **0901-00026**

Sample ID: **GP-28** Sample No.: **008**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<25	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<50	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<25	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<50	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<25	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<25	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<50	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<25	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<25	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<25	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<130	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<25	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<50	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<25	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	86.5	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	102	% R	MQS	01/09/2009
Preparation	EPA 5030B	25	CF	MQS	01/09/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		290	ug/L	RJD	01/09/2009

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Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GP-28** Sample No.: **008**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		79.9	% R	RJD	01/09/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-6** Sample No.: **009**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009

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Project Name.: **Charbert**
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Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-6** Sample No.: **009**
Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	89.5	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		<200	ug/L	RJD	01/09/2009

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Project Name.: **Charbert**
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Date Received: **01/07/2009**
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Work Order No.: **0901-00026**

Sample ID: **RIZ-6** Sample No.: **009**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		90.6	% R	RJD	01/09/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Date Received: **01/07/2009**
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Work Order No.: **0901-00026**

Sample ID: **GZ-7**
Sample No.: **010**
Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	4.2	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-7** Sample No.: **010**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	91.4	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	102	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009

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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GP-26** Sample No.: **011**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<100	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<100	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	96	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<100	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<50	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<100	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<250	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<1300	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<50	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<100	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<50	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<50	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<1300	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<50	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	1200	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<50	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<50	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<500	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<50	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<50	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<50	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<50	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<50	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	1600	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<50	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<50	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<50	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<1300	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<50	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<50	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<100	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<50	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<1300	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<50	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	2100	ug/L	MQS	01/08/2009

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Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GP-26**
Sample No.: **011**
Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<50	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<100	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<50	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<100	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<50	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<50	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<100	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<50	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<50	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<50	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<250	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<50	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<100	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<50	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	94.2	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	102	% R	MQS	01/08/2009
Preparation	EPA 5030B	50	CF	MQS	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		450	ug/L	RJD	01/09/2009

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Work Order No.: **0901-00026**

Sample ID: **GP-26** Sample No.: **011**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		93.7	% R	RJD	01/09/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-3** Sample No.: **012**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	8.1	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<13	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<63	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<2.5	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<63	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	110	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	81	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<63	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<63	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	160	ug/L	MQS	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-3** Sample No.: **012**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<13	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<2.5	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	93.3	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/08/2009
Preparation	EPA 5030B	2.5	CF	MQS	01/08/2009

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Project Name.: **Charbert**
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Date Received: **01/07/2009**
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Work Order No.: **0901-00026**

Sample ID: **RIZ-13** Sample No.: **013**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	1.1	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	3.8	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009

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106 South Street
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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-13** Sample No.: **013**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	93.3	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		1100	ug/L	RJD	01/09/2009

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Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-13** Sample No.: **013**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		127	% R	RJD	01/09/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-101** Sample No.: **014**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	6.6	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	93	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	67	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	150	ug/L	MQS	01/09/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **GZ-101** Sample No.: **014**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	92.0	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	102	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	103	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **TBLK 010509**
Sample No.: **015**
Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/08/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/08/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/08/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/08/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/08/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/08/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **TBLK 010509** Sample No.: **015**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/08/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/08/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/08/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/08/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	93.8	% R	MQS	01/08/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/08/2009
***4-Bromofluorobenzene	EPA 8260	102	% R	MQS	01/08/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/08/2009

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Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-1** Sample No.: **016**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/09/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-1** Sample No.: **016**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	94.4	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	102	% R	MQS	01/09/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/09/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		<200	ug/L	RJD	01/09/2009

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert**
Project No.: **03.0032795.31**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00026**

Sample ID: **RIZ-1** Sample No.: **016**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		92.7	% R	RJD	01/09/2009
Extraction	EPA 3510C	1.0	DF	TN	01/08/2009

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample/Duplicate (LCS/LCSD) Data

Method Blank			Laboratory Control Sample				Laboratory Control Sample Duplicate					
Date Analyzed:	1/8/2009		Date Analyzed:	1/8/2009			1/8/2009					
Volatile Organics	Conc. ug/L	Acceptance Limit	Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict	RPD	Limit	Verdict
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	137	70-130	out	135	70-130	out	1.57	<25	ok
chloromethane	< 1.0	< 1.0	chloromethane	108	70-130	ok	106	70-130	ok	2.82	<25	ok
vinyl chloride	< 0.5	< 0.5	vinyl chloride	107	60-120	ok	105	70-130	ok	2.41	<25	ok
bromomethane	< 1.0	< 1.0	bromomethane	98.0	70-130	ok	97.0	70-130	ok	1.08	<25	ok
chloroethane	< 0.5	< 0.5	chloroethane	102	70-130	ok	102	70-130	ok	0.29	<25	ok
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	108	70-130	ok	108	70-130	ok	0.51	<25	ok
diethyl ether	< 2.5	< 2.5	diethyl ether	90.5	70-130	ok	95.0	70-130	ok	4.84	<25	ok
acetone	< 13	< 13	acetone	124	70-130	ok	130	70-130	ok	4.72	<25	ok
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	99.4	60-120	ok	97.3	70-130	ok	2.17	<25	ok
FREON-113	< 1.0	< 1.0	FREON-113	105	70-130	ok	106	70-130	ok	1.11	<25	ok
iodomethane	< 0.5	< 0.5	iodomethane	87.9	70-130	ok	88.7	70-130	ok	0.86	<25	ok
carbon disulfide	< 5.0	< 5.0	carbon disulfide	107	70-130	ok	107	70-130	ok	0.63	<25	ok
dichloromethane	< 1.0	< 1.0	dichloromethane	91.9	70-130	ok	93.0	70-130	ok	1.21	<25	ok
tert-butyl alcohol (TBA)	< 13	< 13	tert-butyl alcohol (TBA)	125	70-130	ok	126	70-130	ok	0.01	<25	ok
acrylonitrile	< 0.5	< 0.5	acrylonitrile	92.4	70-130	ok	101	70-130	ok	9.21	<25	ok
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	95.2	70-130	ok	98.0	70-130	ok	2.94	<25	ok
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	97.4	70-130	ok	97.6	70-130	ok	0.15	<25	ok
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	96.7	70-130	ok	99.6	70-130	ok	2.90	<25	ok
di-isopropyl ether (DIPE)	< 1.0	< 1.0	di-isopropyl ether (DIPE)	98.7	70-130	ok	102	70-130	ok	3.32	<25	ok
ethyl tert-butyl ether (EtBE)	< 1.0	< 1.0	ethyl tert-butyl ether (EtBE)	98.5	70-130	ok	101	70-130	ok	4.33	<25	ok
vinyl acetate	< 13	< 13	vinyl acetate	93.4	70-130	ok	98.5	70-130	ok	5.40	<25	ok
2-butanone	< 13	< 13	2-butanone	124	70-130	ok	134	70-130	out	8.07	<25	ok
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	100	70-130	ok	99.4	70-130	ok	1.01	<25	ok
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	97.4	70-130	ok	98.7	70-130	ok	1.27	<25	ok
chloroform	< 0.5	< 0.5	chloroform	87.4	60-120	ok	89.2	70-130	ok	2.00	<25	ok
bromochloromethane	< 0.5	< 0.5	bromochloromethane	95.0	70-130	ok	99.3	70-130	ok	4.43	<25	ok
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	97.7	70-130	ok	107	70-130	ok	8.76	<25	ok
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	95.0	70-130	ok	98.9	70-130	ok	1.94	<25	ok
1,1-dichloropropene	< 0.5	< 0.5	1,1-dichloropropene	97.2	70-130	ok	99.6	70-130	ok	1.44	<25	ok
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	98.0	70-130	ok	98.6	70-130	ok	0.56	<25	ok
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	98.8	70-130	ok	102	70-130	ok	5.25	<25	ok
benzene	< 0.5	< 0.5	benzene	94.8	70-130	ok	96.7	70-130	ok	1.92	<25	ok
tert-amyl methyl ether (TAME)	< 1.0	< 1.0	tert-amyl methyl ether (TAME)	101	70-130	ok	105	70-130	ok	3.84	<25	ok
trichloroethene	< 0.5	< 0.5	trichloroethene	95.7	70-130	ok	98.1	70-130	ok	2.44	<25	ok
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	94.6	80-120	ok	96.6	70-130	ok	2.08	<25	ok
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	97.2	70-130	ok	101	70-130	ok	3.43	<25	ok
1,4-Dioxane	< 50	< 50	1,4-Dioxane	105	70-130	ok	113	70-130	ok	7.60	<25	ok
dibromomethane	< 0.5	< 0.5	dibromomethane	95.1	70-130	ok	99.1	70-130	ok	4.06	<25	ok
4-methyl-2-pentanone	< 13	< 13	4-methyl-2-pentanone	126	70-130	ok	134	70-130	out	6.16	<25	ok
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	101	70-130	ok	105	70-130	ok	3.66	<25	ok
toluene	< 0.5	< 0.5	toluene	95.3	80-120	ok	97.4	70-130	ok	2.22	<25	ok
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	100.0	70-130	ok	104	70-130	ok	4.25	<25	ok
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	91.7	70-130	ok	92.7	70-130	ok	1.07	<25	ok
2-hexanone	< 13	< 13	2-hexanone	129	70-130	ok	133	70-130	out	2.53	<25	ok
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	95.6	70-130	ok	96.1	70-130	ok	0.46	<25	ok
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	96.3	70-130	ok	96.8	70-130	ok	1.77	<25	ok
dibromochloromethane	< 0.5	< 0.5	dibromochloromethane	101	70-130	ok	102	70-130	ok	1.06	<25	ok
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	97.6	70-130	ok	99.2	70-130	ok	1.62	<25	ok
chlorobenzene	< 0.5	< 0.5	chlorobenzene	93.7	70-130	ok	92.6	70-130	ok	1.17	<25	ok
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	96.7	70-130	ok	95.8	70-130	ok	1.00	<25	ok
ethylbenzene	< 0.5	< 0.5	ethylbenzene	96.8	80-120	ok	94.6	70-130	ok	2.34	<25	ok
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	93.7	70-130	ok	94.5	70-130	ok	0.83	<25	ok
m&p-xylene	< 1.0	< 1.0	m&p-xylene	94.7	70-130	ok	92.1	70-130	ok	2.71	<25	ok
o-xylene	< 0.5	< 0.5	o-xylene	93.3	70-130	ok	92.2	70-130	ok	1.19	<25	ok
styrene	< 0.5	< 0.5	styrene	104	70-130	ok	105	70-130	ok	0.43	<25	ok
bromoform	< 1.0	< 1.0	bromoform	99.4	70-130	ok	103	70-130	ok	3.92	<25	ok
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	109	70-130	ok	108	70-130	ok	1.29	<25	ok
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	100	70-130	ok	103	70-130	ok	3.06	<25	ok
bromobenzene	< 0.5	< 0.5	bromobenzene	96.9	70-130	ok	98.9	70-130	ok	1.98	<25	ok
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	99.8	70-130	ok	98.7	70-130	ok	1.09	<25	ok
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	93.5	70-130	ok	92.5	70-130	ok	1.04	<25	ok
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	98.3	70-130	ok	97.4	70-130	ok	0.91	<25	ok
trans-1,4-dichloro-2-butene	< 1.0	< 1.0	trans-1,4-dichloro-2-butene	94.8	70-130	ok	97.3	70-130	ok	2.63	<25	ok
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	95.4	70-130	ok	94.5	70-130	ok	0.87	<25	ok
tert-butyl-benzene	< 0.5	< 0.5	tert-butyl-benzene	115	70-130	ok	111	70-130	ok	3.93	<25	ok
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	94.1	70-130	ok	93.0	70-130	ok	1.15	<25	ok
sec-butyl-benzene	< 0.5	< 0.5	sec-butyl-benzene	90.8	70-130	ok	89.8	70-130	ok	1.13	<25	ok
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	95.2	70-130	ok	94.2	70-130	ok	0.98	<25	ok
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	94.0	70-130	ok	95.7	70-130	ok	1.74	<25	ok
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	93.2	70-130	ok	94.3	70-130	ok	1.24	<25	ok
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	95.2	70-130	ok	94.1	70-130	ok	1.22	<25	ok
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	89.9	70-130	ok	95.4	70-130	ok	5.88	<25	ok
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	95.3	70-130	ok	98.5	70-130	ok	1.28	<25	ok
1,3,5-trichlorobenzene	< 0.5	< 0.5	1,3,5-trichlorobenzene	88.9	70-130	ok	91.8	70-130	ok	3.25	<25	ok
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	100	70-130	ok	104	70-130	ok	3.47	<25	ok
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	99.9	70-130	ok	101	70-130	ok	0.68	<25	ok
naphthalene	< 1.0	< 1.0	naphthalene	91.0	70-130	ok	99.3	70-130	ok	8.80	<25	ok
1,2,3-trichlorobenzene	< 0.5	< 0.5	1,2,3-trichlorobenzene	93.9	70-130	ok	100	70-130	ok	6.38	<25	ok

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	RPD	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	103	70-130	DIBROMOFLUOROMETHANE	103	70-130	ok	105	70-130	ok	1.97	<25	ok
1,2-DICHLOROETHANE-D4	89.3	70-130	1,2-DICHLOROETHANE-D4	99.0	70-130	ok	103	70-130	ok	3.82	<25	ok
TOLUENE-D8	102	70-130	TOLUENE-D8	104	70-130	ok	104	70-130	ok	0.62	<26	ok
4-BROMOFLUOROBENZENE	98.4	70-130	4-BROMOFLUOROBENZENE	104	70-130	ok	104	70-130	ok	0.50	<25	ok
1,2-DICHLOROBENZENE-D4	96.3	70-130	1,2-DICHLOROBENZENE-D4	97.0	70-130	ok	98.3	70-130	ok	1.31	<25	ok

Instrument: HP GC/MS "3"

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample/Duplicate (LCS/LCSD) Data

Method Blank			Laboratory Control Sample				Laboratory Control Sample Duplicate					
Date Analyzed:	1/9/2009		Date Analyzed:	1/9/2009			1/9/2009					
Volatile Organics	Conc. ug/L	Acceptance Limit	Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict	RPD	Limit	Verdict
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	139	70-130	out	138	70-130	out	2.22	<25	ok
chloromethane	< 1.0	< 1.0	chloromethane	108	70-130	ok	106	70-130	ok	0.26	<25	ok
vinyl chloride	< 0.5	< 0.5	vinyl chloride	107	60-120	ok	105	70-130	ok	1.99	<25	ok
bromomethane	< 1.0	< 1.0	bromomethane	101	70-130	ok	98.9	70-130	ok	1.85	<25	ok
chloroethane	< 0.5	< 0.5	chloroethane	101	70-130	ok	103	70-130	ok	1.85	<25	ok
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	110	70-130	ok	110	70-130	ok	0.09	<25	ok
diethyl ether	< 2.5	< 2.5	diethyl ether	93.0	70-130	ok	93.7	70-130	ok	0.79	<25	ok
acetone	< 13	< 13	acetone	119	70-130	ok	125	70-130	ok	5.01	<25	ok
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	98.6	60-120	ok	98.7	70-130	ok	0.12	<25	ok
FREON-113	< 1.0	< 1.0	FREON-113	107	70-130	ok	106	70-130	ok	1.00	<25	ok
iodomethane	< 0.5	< 0.5	iodomethane	90.5	70-130	ok	91.4	70-130	ok	1.00	<25	ok
carbon disulfide	< 5.0	< 5.0	carbon disulfide	108	70-130	ok	108	70-130	ok	0.08	<25	ok
dichloromethane	< 1.0	< 1.0	dichloromethane	94.1	70-130	ok	95.2	70-130	ok	1.15	<25	ok
tert-butyl alcohol (TBA)	< 13	< 13	tert-butyl alcohol (TBA)	131	70-130	out	126	70-130	ok	3.60	<25	ok
acrylonitrile	< 0.5	< 0.5	acrylonitrile	111	70-130	ok	92.3	70-130	ok	18.0	<25	ok
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	100	70-130	ok	98.4	70-130	ok	1.83	<25	ok
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	98.8	70-130	ok	98.8	70-130	ok	0.13	<25	ok
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	97.9	70-130	ok	100	70-130	ok	2.59	<25	ok
di-isopropyl ether (DIPE)	< 1.0	< 1.0	di-isopropyl ether (DIPE)	99.3	70-130	ok	99.2	70-130	ok	0.19	<25	ok
ethyl tert-butyl ether (EtBE)	< 1.0	< 1.0	ethyl tert-butyl ether (EtBE)	98.7	70-130	ok	102	70-130	ok	3.21	<25	ok
vinyl acetate	< 13	< 13	vinyl acetate	94.4	70-130	ok	96.0	70-130	ok	1.68	<25	ok
2-butanone	< 13	< 13	2-butanone	127	70-130	ok	133	70-130	out	4.81	<25	ok
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	102	70-130	ok	102	70-130	ok	0.38	<25	ok
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	99.0	70-130	ok	98.5	70-130	ok	0.48	<25	ok
chloroform	< 0.5	< 0.5	chloroform	90.8	60-120	ok	91.8	70-130	ok	0.94	<25	ok
bromochloromethane	< 0.5	< 0.5	bromochloromethane	100	70-130	ok	101	70-130	ok	1.02	<25	ok
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	105	70-130	ok	99.9	70-130	ok	4.95	<25	ok
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	97.9	70-130	ok	98.8	70-130	ok	0.75	<25	ok
1,1-dichloropropene	< 0.5	< 0.5	1,1-dichloropropene	99.2	70-130	ok	99.9	70-130	ok	0.71	<25	ok
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	100	70-130	ok	101	70-130	ok	0.78	<25	ok
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	101	70-130	ok	102	70-130	ok	1.44	<25	ok
benzene	< 0.5	< 0.5	benzene	96.8	70-130	ok	96.5	70-130	ok	0.73	<25	ok
tert-amyl methyl ether (TAME)	< 1.0	< 1.0	tert-amyl methyl ether (TAME)	102	70-130	ok	105	70-130	ok	2.79	<25	ok
trichloroethene	< 0.5	< 0.5	trichloroethene	97.3	70-130	ok	99.5	70-130	ok	2.26	<25	ok
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	98.7	60-120	ok	98.9	70-130	ok	2.27	<25	ok
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	102	70-130	ok	106	70-130	ok	2.63	<25	ok
1,4-Dioxane	< 50	< 50	1,4-Dioxane	113	70-130	ok	113	70-130	ok	0.42	<25	ok
dibromomethane	< 0.5	< 0.5	dibromomethane	99.8	70-130	ok	104	70-130	ok	3.94	<25	ok
4-methyl-2-pentanone	< 13	< 13	4-methyl-2-pentanone	130	70-130	ok	133	70-130	out	2.32	<25	ok
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	104	70-130	ok	105	70-130	ok	0.97	<25	ok
toluene	< 0.5	< 0.5	toluene	98.4	60-120	ok	98.6	70-130	ok	0.21	<25	ok
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	104	70-130	ok	105	70-130	ok	0.70	<25	ok
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	93.2	70-130	ok	93.2	70-130	ok	0.03	<25	ok
2-hexanone	< 13	< 13	2-hexanone	131	70-130	out	133	70-130	out	1.33	<25	ok
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	96.9	70-130	ok	98.2	70-130	ok	2.38	<25	ok
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	99.8	70-130	ok	101	70-130	ok	1.39	<25	ok
dibromochloromethane	< 0.5	< 0.5	dibromochloromethane	103	70-130	ok	107	70-130	ok	3.97	<25	ok
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	99.8	70-130	ok	102	70-130	ok	1.98	<25	ok
chlorobenzene	< 0.5	< 0.5	chlorobenzene	94.7	70-130	ok	94.8	70-130	ok	0.05	<25	ok
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	98.5	70-130	ok	100	70-130	ok	1.53	<25	ok
ethylbenzene	< 0.5	< 0.5	ethylbenzene	94.5	60-120	ok	95.2	70-130	ok	0.77	<25	ok
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	97.5	70-130	ok	97.4	70-130	ok	0.15	<25	ok
m&p-xylene	< 1.0	< 1.0	m&p-xylene	93.0	70-130	ok	93.2	70-130	ok	0.26	<25	ok
o-xylene	< 0.5	< 0.5	o-xylene	94.1	70-130	ok	92.7	70-130	ok	1.49	<25	ok
styrene	< 0.5	< 0.5	styrene	105	70-130	ok	104	70-130	ok	1.04	<25	ok
bromoform	< 1.0	< 1.0	bromoform	108	70-130	ok	108	70-130	ok	0.44	<25	ok
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	110	70-130	ok	108	70-130	ok	2.41	<25	ok
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	103	70-130	ok	105	70-130	ok	1.01	<25	ok
bromobenzene	< 0.5	< 0.5	bromobenzene	101	70-130	ok	100	70-130	ok	0.79	<25	ok
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	100	70-130	ok	97.8	70-130	ok	2.71	<25	ok
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	98.3	70-130	ok	93.7	70-130	ok	2.82	<25	ok
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	98.7	70-130	ok	97.0	70-130	ok	1.65	<25	ok
trans-1,4-dichloro-2-butene	< 1.0	< 1.0	trans-1,4-dichloro-2-butene	104	70-130	ok	105	70-130	ok	0.71	<25	ok
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	96.9	70-130	ok	96.3	70-130	ok	0.61	<25	ok
tert-butyl-benzene	< 0.5	< 0.5	tert-butyl-benzene	116	70-130	ok	115	70-130	ok	1.38	<25	ok
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	95.2	70-130	ok	93.4	70-130	ok	1.87	<25	ok
sec-butyl-benzene	< 0.5	< 0.5	sec-butyl-benzene	95.2	70-130	ok	93.5	70-130	ok	1.79	<25	ok
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	97.3	70-130	ok	94.3	70-130	ok	3.17	<25	ok
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	97.4	70-130	ok	96.2	70-130	ok	1.23	<25	ok
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	97.0	70-130	ok	96.7	70-130	ok	0.35	<25	ok
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	97.5	70-130	ok	94.7	70-130	ok	2.89	<25	ok
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	98.8	70-130	ok	97.8	70-130	ok	1.11	<25	ok
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	98.9	70-130	ok	99.7	70-130	ok	0.83	<25	ok
1,3,5-trichlorobenzene	< 0.5	< 0.5	1,3,5-trichlorobenzene	96.0	70-130	ok	95.9	70-130	ok	0.08	<25	ok
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	107	70-130	ok	107	70-130	ok	0.11	<25	ok
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	104	70-130	ok	105	70-130	ok	1.12	<25	ok
naphthalene	< 1.0	< 1.0	naphthalene	98.8	70-130	ok	98.6	70-130	ok	1.84	<25	ok
1,2,3-trichlorobenzene	< 0.5	< 0.5	1,2,3-trichlorobenzene	101	70-130	ok	102	70-130	ok	0.57	<25	ok

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	RPD	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	106	70-130	DIBROMOFLUOROMETHANE	107	70-130	ok	109	70-130	ok	1.98	<25	ok
1,2-DICHLOROETHANE-D4	91.5	70-130	1,2-DICHLOROETHANE-D4	102	70-130	ok	101	70-130	ok	0.38	<25	ok
TOLUENE-D8	103	70-130	TOLUENE-D8	103	70-130	ok	103	70-130	ok	0.60	<25	ok
4-BROMOFLUOROBENZENE	102	70-130	4-BROMOFLUOROBENZENE	107	70-130	ok	106	70-130	ok	0.58	<25	ok
1,2-DICHLOROBENZENE-D4	102	70-130	1,2-DICHLOROBENZENE-D4	101	70-130	ok	99.3	70-130	ok	1.87	<25	ok

Instrument: HP GC/MS "S"

W.O. # 0901-00026 (for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	☐ pH ☐ Cond.	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260 - 8010 List (Chlor.)	EPA 8260 – 8021 list	EPA 8021 - 8020 List (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs	☐ 601 ☐ 602 WW VOCs	EPA 8270 FULL SVOCs	EPA 8270 ☐ PAH ☐ A ☐ BN	EPA 625 WW SVOCs	EPA 8082–PCBs	EPA 8081–Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ PPM-13 ☐ R-8	MCP 14 Metals (MA)	Metals (List Below)**	TCLP - Specify Below	SPLP - Specify Below	EPA 300 ☐ Cl ☐ SO4	EPA 300 ☐ NO2 ☐ NO3	Total # of Cont.	Note #
GZ-21	1-5-09 0920	GW			X												X											4	
GZ-22	↓ 1035	↓			X																							3	
GZ-23	1003				X												X											4	
GZ-19	1040				X																							3	
RIZ-7	1051				X												X											4	
GZ-20	1247				X																							3	
RIZ-5	1207				X												X											4	
GP-28	1410				X												X											4	
RIZ-6	1405				X												X											4	
GZ-7	1444				X																							3	
GP-26	↓ 1529	↓			X												X											4	
GZ-3	1-6-09 1050		1/7		✓																							3	1/7
PRESERVATIVE (Cl - HCl, M=Methanol, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*					Cl												—												
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*					V												G												

RELINQUISHED BY: (AFFILIATION)	DATE/TIME	RECEIVED BY: (AFFILIATION)
[signature]	1-6-09 1460	Bill Burcam 1/7/09
Bill Burcam	1/7/09 1215	[signature] 1/7/09 1400

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4° C)
*Specify "Other" preservatives and containers types in this space.

4 2 0820 TB

PROJECT MANAGER: Steve Andrus EXT:____

TURNAROUND TIME: (Standard) Rush__ Days, Approved by ____

LAB USE: TEMP. OF COOLER 3.7 °C Temp Blank / Cooler Air 0810

1/7/09 1310

1/7 03.00

GZA FILE NO: 32795.31 TASK NO:____ P.O. NO.____

PROJECT Chamberl ICMP

LOCATION Alton, RI

COLLECTOR(S) E, Beloff SHEET 1 OF 2

GZA GEOENVIRONMENTAL, INC.
Labaratory Division

106 South Street
Hopkinton, MA 01748
(781) 278-4700
FAX (508) 435-9912

CHAIN-OF-CUSTODY RECORD

W.O. # 0901-00026 (for lab use only)

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: EPA 8260	EPA 8260 – 8011 List (Chlor.)	EPA 8260 – 8021 list	EPA 8021 – 8260 List (MTBE)	EPA 624.2 DW VOCs	EPA 624 WW VOCs	601 ☐ 602 WW VOCs	EPA 8270 FULL SVOCs	EPA 8270 ☐ PAH ☐ A + BN	EPA 625 WW SVOCs	EPA 8082-PCBs	EPA 8081-Pest	TPH-GC (Mod. 8100)	TPH-GC w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals ☐ FPM-15 ☐ 14	MCP 14 Metals (MA)	Metals (List Below)*	TCLP – Specify Below	SPLP – Specify Below	EPA 300 ☐ Cl ☐ SO4	EPA 300 ☐ NO2 ☐ NO3	Total # of Cont.	Note #
RIZ-13	1-6-09 1041	GW	X												X											4	
GZ-101	1-6-09 1050	↓	X																							3	
TBLK010509	1-5-09	↓	X																							3	
RIZ-1	1-6-09 1142	↓	X												X											4	
PRESERVATIVE (Cl - HCl, M=Methanol, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*			d												1												
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*			V												G												

RELINQUISHED BY: (AFFILIATION) DATE/TIME RECEIVED BY: (AFFILIATION)
1-6-09 14:00 Bill Biscan 1/7/09

RELINQUISHED BY: (AFFILIATION) DATE/TIME RECEIVED BY: (AFFILIATION)
Bill Biscan 1/7/09 RLS 11/7/09 1700

RELINQUISHED BY: (AFFILIATION) DATE/TIME RECEIVED BY: (AFFILIATION)

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4° C)
Specify "Other" preservatives and containers types in this space.

4.2 0820 TB

PROJECT MANAGER: Steve Andrus EXT:

TURNAROUND TIME: (Standard) Rush ___ Days, Approved by ___

LAB USE: TEMP. OF COOLER 3.7 °C Temp Blank Cooler Air 0820

11/7/09 1310

GZA GeoEnvironmental, Inc.
Labaratory Division

106 South Street
Hopkinton, MA 01748
(781) 278-4700
FAX (508) 435-9912

GZA FILE NO: 32795.31 TASK NO: P.O. NO.

PROJECT Charbert ICMP

LOCATION Alton, RI

COLLECTOR(S) E. Beloff

SHEET 2 OF 2

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA and ME: **MA092** NH: **2028**
CT: **PH0579** RI: **LAO00236**
NELAC - NYS DOH: **11063**

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project No.: **03.0032795.29**
Work Order No.: **0901-00027**
Date Received: **01/07/2009**
Date Reported: **01/12/2009**

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
01/06/2009	Aqueous	0901-00027 001	GP-22
01/06/2009	Aqueous	0901-00027 002	GZ-1
01/06/2009	Aqueous	0901-00027 003	GZ-100
01/06/2009	Aqueous	0901-00027 004	RIZ-21
01/06/2009	Aqueous	0901-00027 005	RIZ-14
01/06/2009	Aqueous	0901-00027 006	TBLK 010609

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 01/07/09 via _x_GZA courier, __EC, __FEDEX, or ___hand delivered. The temperature of the __temperature blank/_x_cooler air, was 2.7 degrees C. The temperature requirement for most analyses is above freezing to 6 degrees C. The samples were received intact for all requested analyses.

The chain of custody indicates that the samples, when required, were chemically preserved in accordance with the method they reference.

2. EPA Method 8260 - VOCs

The continuing calibration verification standard (CCV) (01/09/09) had analytes outside of the 30%D QC acceptance limit. The outliers include dichlorodifluoromethane (39%) and 2-hexanone (31%).

The Laboratory Control Sample (LCS) (01/09/08 S) had 8260 list analytes outside of the 70-130% QC acceptance limits. Specific outliers include dichlorodifluoromethane (139%) and 2-hexanone (131%). These analytes were not detected in the associated samples.

Attach QC 8260 01/09/09 S - Aqueous

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Data Authorized By: _____

NELAC certification, as indicated by the NELAC Lab ID Number, is per analyte. For a complete list of NELAC validated analytes, please contact the laboratory.

Abbreviations:
% R = % Recovery
DF = Dilution Factor
DFS = Dilution Factor Solids
CF = Calculation Factor
DO = Diluted Out

Method Key:
Method 8260: The current version of the method is 8260B.
Method 8270: The current version of the method is 8270D.
Method 6010: The current version of the method is 6010B.

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

Soil data is reported on a dry weight basis unless otherwise specified.
Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **GP-22** Sample No.: **001**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/09/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **GP-22** Sample No.: **001**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	91.4	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	103	% R	MQS	01/09/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/09/2009

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Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **GZ-1** Sample No.: **002**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	1.8	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	45	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/09/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	10	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	2.0	ug/L	MQS	01/09/2009

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Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **GZ-1** Sample No.: **002**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	3.9	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	91.1	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/09/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/09/2009

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Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **GZ-100**
Sample No.: **003**
Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/09/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009

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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **GZ-100** Sample No.: **003**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	88.0	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	102	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/09/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/09/2009

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Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **RIZ-21** Sample No.: **004**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/09/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **RIZ-21** Sample No.: **004**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	89.2	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	104	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	99.8	% R	MQS	01/09/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/09/2009

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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **RIZ-14** Sample No.: **005**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/09/2009
1;1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009

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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **RIZ-14** Sample No.: **005**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	92.3	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	101	% R	MQS	01/09/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/09/2009

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Project No.: **03.0032795.29**

Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **TBLK 010609** Sample No.: **006**

Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	01/09/2009
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromomethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Diethylether	EPA 8260	<5.0	ug/L	MQS	01/09/2009
Acetone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Butanone	EPA 8260	<25	ug/L	MQS	01/09/2009
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Chloroform	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	01/09/2009
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Benzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	01/09/2009
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Toluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Hexanone	EPA 8260	<25	ug/L	MQS	01/09/2009
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	01/09/2009

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Project Name.: **Charbert ICMP**
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Date Received: **01/07/2009**
Date Reported: **01/12/2009**
Work Order No.: **0901-00027**

Sample ID: **TBLK 010609**
Sample No.: **006**
Sample Date: **01/06/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
o-Xylene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Styrene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromoform	EPA 8260	<2.0	ug/L	MQS	01/09/2009
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	01/09/2009
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Naphthalene	EPA 8260	<2.0	ug/L	MQS	01/09/2009
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	01/09/2009
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	89.1	% R	MQS	01/09/2009
***Toluene-D8	EPA 8260	103	% R	MQS	01/09/2009
***4-Bromofluorobenzene	EPA 8260	100	% R	MQS	01/09/2009
Preparation	EPA 5030B	1.0	CF	MQS	01/09/2009

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EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample/Duplicate (LCS/LCSD) Data

Method Blank			Laboratory Control Sample				Laboratory Control Sample Duplicate						
Date Analyzed:	1/9/2009		Date Analyzed:	1/9/2009			1/9/2009						
Volatile Organics	Conc. ug/L	Acceptance Limit	Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict	RPD	Limit	Verdict
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	139	70-130	out	136	70-130	out	2.22	<25	ok
chloromethane	< 1.0	< 1.0	chloromethane	106	70-130	ok	106	70-130	ok	0.26	<25	ok
vinyl chloride	< 0.5	< 0.5	vinyl chloride	107	80-120	ok	105	70-130	ok	1.99	<25	ok
bromomethane	< 1.0	< 1.0	bromomethane	101	70-130	ok	98.9	70-130	ok	1.85	<25	ok
chloroethane	< 0.5	< 0.5	chloroethane	101	70-130	ok	103	70-130	ok	1.85	<25	ok
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	110	70-130	ok	110	70-130	ok	0.09	<25	ok
diethyl ether	< 2.5	< 2.5	diethyl ether	93.0	70-130	ok	93.7	70-130	ok	0.79	<25	ok
acetone	< 13	< 13	acetone	119	70-130	ok	125	70-130	ok	5.01	<25	ok
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	98.6	80-120	ok	98.7	70-130	ok	0.12	<25	ok
FREON-113	< 1.0	< 1.0	FREON-113	107	70-130	ok	108	70-130	ok	1.00	<25	ok
iodomethane	< 0.5	< 0.5	iodomethane	90.5	70-130	ok	91.4	70-130	ok	1.00	<25	ok
carbon disulfide	< 5.0	< 5.0	carbon disulfide	108	70-130	ok	108	70-130	ok	0.08	<25	ok
dichloromethane	< 1.0	< 1.0	dichloromethane	94.1	70-130	ok	95.2	70-130	ok	1.15	<25	ok
tert-butyl alcohol (TBA)	< 13	< 13	tert-butyl alcohol (TBA)	131	70-130	out	126	70-130	ok	3.80	<25	ok
acrylonitrile	< 0.5	< 0.5	acrylonitrile	111	70-130	ok	92.3	70-130	ok	18.0	<25	ok
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	100	70-130	ok	98.4	70-130	ok	1.83	<25	ok
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	98.8	70-130	ok	98.8	70-130	ok	0.13	<25	ok
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	97.9	70-130	ok	100	70-130	ok	2.59	<25	ok
di-isopropyl ether (DIPE)	< 1.0	< 1.0	di-isopropyl ether (DIPE)	99.3	70-130	ok	99.2	70-130	ok	0.19	<25	ok
ethyl tert-butyl ether (ETBE)	< 1.0	< 1.0	ethyl tert-butyl ether (ETBE)	98.7	70-130	ok	102	70-130	ok	3.21	<25	ok
vinyl acetate	< 13	< 13	vinyl acetate	94.4	70-130	ok	96.0	70-130	ok	1.66	<25	ok
2-butanone	< 13	< 13	2-butanone	127	70-130	ok	133	70-130	out	4.61	<25	ok
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	102	70-130	ok	102	70-130	ok	0.38	<25	ok
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	99.0	70-130	ok	98.5	70-130	ok	0.48	<25	ok
chloroform	< 0.5	< 0.5	chloroform	90.8	80-120	ok	91.6	70-130	ok	0.94	<25	ok
bromochloromethane	< 0.5	< 0.5	bromochloromethane	100	70-130	ok	101	70-130	ok	1.02	<25	ok
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	105	70-130	ok	99.9	70-130	ok	4.95	<25	ok
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	97.9	70-130	ok	98.6	70-130	ok	0.75	<25	ok
1,1-dichloropropene	< 0.5	< 0.5	1,1-dichloropropene	99.2	70-130	ok	99.9	70-130	ok	0.71	<25	ok
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	100	70-130	ok	101	70-130	ok	0.78	<25	ok
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	101	70-130	ok	102	70-130	ok	1.44	<25	ok
benzene	< 0.5	< 0.5	benzene	95.8	70-130	ok	96.5	70-130	ok	0.73	<25	ok
tert-amyl methyl ether (TAME)	< 1.0	< 1.0	tert-amyl methyl ether (TAME)	102	70-130	ok	105	70-130	ok	2.79	<25	ok
trichloroethene	< 0.5	< 0.5	trichloroethene	97.3	70-130	ok	99.5	70-130	ok	2.26	<25	ok
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	98.7	80-120	ok	98.9	70-130	ok	2.27	<25	ok
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	102	70-130	ok	105	70-130	ok	2.63	<25	ok
1,4-Dioxane	< 50	< 50	1,4-Dioxane	113	70-130	ok	113	70-130	ok	0.42	<25	ok
dibromomethane	< 0.5	< 0.5	dibromomethane	99.8	70-130	ok	104	70-130	ok	3.94	<25	ok
4-methyl-2-pentanone	< 13	< 13	4-methyl-2-pentanone	130	70-130	ok	133	70-130	out	2.32	<25	ok
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	104	70-130	ok	105	70-130	ok	0.97	<25	ok
toluene	< 0.5	< 0.5	toluene	98.4	80-120	ok	98.6	70-130	ok	0.21	<25	ok
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	104	70-130	ok	105	70-130	ok	0.70	<25	ok
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	93.2	70-130	ok	93.2	70-130	ok	0.03	<25	ok
2-hexanone	< 13	< 13	2-hexanone	131	70-130	out	133	70-130	out	1.33	<25	ok
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	95.9	70-130	ok	98.2	70-130	ok	2.38	<25	ok
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	99.8	70-130	ok	101	70-130	ok	1.39	<25	ok
dibromochloromethane	< 0.5	< 0.5	dibromochloromethane	103	70-130	ok	107	70-130	ok	3.97	<25	ok
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	99.8	70-130	ok	102	70-130	ok	1.98	<25	ok
chlorobenzene	< 0.5	< 0.5	chlorobenzene	94.7	70-130	ok	94.8	70-130	ok	0.05	<25	ok
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	98.5	70-130	ok	100	70-130	ok	1.53	<25	ok
ethylbenzene	< 0.5	< 0.5	ethylbenzene	94.5	80-120	ok	95.2	70-130	ok	0.77	<25	ok
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	97.5	70-130	ok	97.4	70-130	ok	0.15	<25	ok
m&p-xylene	< 1.0	< 1.0	m&p-xylene	93.0	70-130	ok	93.2	70-130	ok	0.26	<25	ok
o-xylene	< 0.5	< 0.5	o-xylene	94.1	70-130	ok	92.7	70-130	ok	1.49	<25	ok
styrene	< 0.5	< 0.5	styrene	105	70-130	ok	104	70-130	ok	1.04	<25	ok
bromoform	< 1.0	< 1.0	bromoform	108	70-130	ok	108	70-130	ok	0.44	<25	ok
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	110	70-130	ok	108	70-130	ok	2.41	<25	ok
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	103	70-130	ok	105	70-130	ok	1.01	<25	ok
bromobenzene	< 0.5	< 0.5	bromobenzene	101	70-130	ok	100	70-130	ok	0.79	<25	ok
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	100	70-130	ok	97.8	70-130	ok	2.71	<25	ok
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	96.3	70-130	ok	93.7	70-130	ok	2.82	<25	ok
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	98.7	70-130	ok	97.0	70-130	ok	1.65	<25	ok
trans-1,4-dichloro-2-butene	< 1.0	< 1.0	trans-1,4-dichloro-2-butene	104	70-130	ok	105	70-130	ok	0.71	<25	ok
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	98.9	70-130	ok	98.3	70-130	ok	0.61	<25	ok
tert-butyl-benzene	< 0.5	< 0.5	tert-butyl-benzene	116	70-130	ok	115	70-130	ok	1.38	<25	ok
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	95.2	70-130	ok	93.4	70-130	ok	1.87	<25	ok
sec-butyl-benzene	< 0.5	< 0.5	sec-butyl-benzene	95.2	70-130	ok	93.5	70-130	ok	1.79	<25	ok
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	97.3	70-130	ok	94.3	70-130	ok	3.17	<25	ok
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	97.4	70-130	ok	98.2	70-130	ok	1.23	<25	ok
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	97.0	70-130	ok	96.7	70-130	ok	0.35	<25	ok
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	97.5	70-130	ok	94.7	70-130	ok	2.89	<25	ok
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	96.8	70-130	ok	97.8	70-130	ok	1.11	<25	ok
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	98.9	70-130	ok	99.7	70-130	ok	0.83	<25	ok
1,3,5-trichlorobenzene	< 0.5	< 0.5	1,3,5-trichlorobenzene	95.0	70-130	ok	95.9	70-130	ok	0.96	<25	ok
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	107	70-130	ok	107	70-130	ok	0.11	<25	ok
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	104	70-130	ok	105	70-130	ok	1.12	<25	ok
naphthalene	< 1.0	< 1.0	naphthalene	98.8	70-130	ok	98.6	70-130	ok	1.84	<25	ok
1,2,3-trichlorobenzene	< 0.5	< 0.5	1,2,3-trichlorobenzene	101	70-130	ok	102	70-130	ok	0.57	<25	ok

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	RPD	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	108	70-130	DIBROMOFLUOROMETHANE	107	70-130	ok	109	70-130	ok	1.98	<25	ok
1,2-DICHLOROETHANE-D4	91.5	70-130	1,2-DICHLOROETHANE-D4	102	70-130	ok	101	70-130	ok	0.38	<25	ok
TOLUENE-D8	103	70-130	TOLUENE-D8	103	70-130	ok	103	70-130	ok	0.60	<25	ok
4-BROMOFLUOROBENZENE	102	70-130	4-BROMOFLUOROBENZENE	107	70-130	ok	106	70-130	ok	0.56	<25	ok
1,2-DICHLOROBENZENE-D4	102	70-130	1,2-DICHLOROBENZENE-D4	101	70-130	ok	99.3	70-130	ok	1.87	<25	ok

Instrument: HP GC/MS "S"

CHAIN-OF-CUSTODY RECORD

W.O. # 0901-00027 (for lab use only)

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W., SW=Surface W., WW=Waste W., DW=Drinking W., P=Product, Other (specify))	ANALYSIS REQUIRED: EPA 8260	Total # of Cont.	Note #
GP-22	1-6-09	GW	X	3	
GZ-1			X	3	
GZ-100			X	3	
RIZ-21			X	3	
RIZ-14			X	3	
TBLK010609			X	3	
PRESERVATIVE (Cl - HCl, M=Methanol, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*			d		
CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*			V		

RELINQUISHED BY: (AFFILIATION) DATE/TIME RECEIVED BY: (AFFILIATION)
1-6-09 1420 Bill Buscom

RELINQUISHED BY: (AFFILIATION) DATE/TIME RECEIVED BY: (AFFILIATION)
Bill Buscom 1/7/09 1215 [illegible] 1/7/09 1420

RELINQUISHED BY: (AFFILIATION) DATE/TIME RECEIVED BY: (AFFILIATION)

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4° C)
*Specify "Other" preservatives and containers types in this space.

PROJECT MANAGER: Steve Andrus EXT:

GZA GeoEnvironmental, Inc.
Labaratory Division

106 South Street
Hopkinton, MA 01748
(781) 278-4700
FAX (508) 435-9912

TURNAROUND TIME: (Standard) Rush___ Days, Approved by ___

LAB USE: TEMP. OF COOLER 2.7 °C (Temp Blank / Cooler Air) 1320 1/7/09

1/7/09 05-00 GZA FILE NO: 32795.29 TASK NO: P.O. NO.

PROJECT Charbert perimeter wells

LOCATION Alton, RI

COLLECTOR(S) E. Belore SHEET 1 OF 1

APPENDIX C

HYDROCARBON DEGRADATION CALCULATIONS

INTERIOR SOIL VAPOR EXTRACTION SYSTEM
BIODEGRADATION CALCULATIONS

Charbert Facility
Alton, Rhode Island

Biological degradation of PCE based on Carbon Dioxide Levels in Soil Vapor
January 18, 2008 to January 21, 2009

Well I.D.	Average Flow (CFM)	Average O_2 %	Average CO_2 %	% Below 21	Respiration Quot. %
SVE-1	7.3	20.4	0.1	-0.60	16.67
SVE-2	7.2	20.5	0.1	-0.50	20.00
SVE-3	7.3	20.4	0.1	-0.60	16.67
SVE-4	7.2	20.4	0.1	-0.60	16.67
SVE-5	6.5	20.4	0.1	-0.60	16.67
SVE-6	7.3	20.4	0.1	-0.60	16.67
SVE-7	6.8	20.4	0.2	-0.60	33.33
SVE-8	7.2	20.4	0.2	-0.60	33.33
SVE-9	7.4	20.4	0.2	-0.60	33.33
SVE-10	7.3	20.4	0.2	-0.60	33.33
SVE-11	7.3	20.0	0.4	-1.00	40.00
SVE-12	7.2	20.2	0.3	-0.80	37.50
SVE-13	7.4	20.4	0.1	-0.60	16.67
SVE-14	7.2	20.4	0.1	-0.60	16.67
SVE-15	7.4	20.4	0.1	-0.60	16.67
SVE-16	7.3	20.5	0.1	-0.50	20.00
SSVW-1	7.2	20.4	0.1	-0.60	16.67
SSVW-2	7.2	20.5	0.1	-0.50	20.00
SSVW-3	7.3	20.4	0.1	-0.60	16.67
SSVW-4	7.2	20.2	0.3	-0.80	37.50
SSVW-5	7.2	20.4	0.1	-0.60	16.67
SSVW-6	7.2	20.5	0.1	-0.50	20.00
SSVW-7	7.4	20.6	0.1	-0.40	25.00

Well I.D.	Mass of CO_2 (lb/day)	Biodegradation (lb of Hex./day)
SVE-1	0.65	0.42
SVE-2	0.64	0.41
SVE-3	0.65	0.42
SVE-4	0.64	0.41
SVE-5	0.58	0.37
SVE-6	0.65	0.42
SVE-7	1.21	0.78
SVE-8	1.28	0.83
SVE-9	1.32	0.85
SVE-10	1.30	0.84
SVE-11	2.60	1.68
SVE-12	1.93	1.24
SVE-13	0.66	0.43
SVE-14	0.64	0.41
SVE-15	0.66	0.43
SVE-16	0.65	0.42
SSVW-1	0.64	0.41
SSVW-2	0.64	0.41
SSVW-3	0.65	0.42
SSVW-4	1.93	1.24
SSVW-5	0.64	0.41
SSVW-6	0.64	0.41
SSVW-7	0.66	0.43

Total lb of Hex. Removed = 14.1
lb of Hex. / Day

Notes:

1. The theoretical degradation of hexane = (3.1 lb of CO_2 / 1 lb of Hexane)
2. The calculated value given above, assumes 1.6 lbs of CO_2 are measured when 1 lb of hexane is degraded due to CO_2 use in bacterial cell growth (approximation).
3. Average values for Air flow, CO_2 and O_2 were used for each monitoring well to detremine the biodegradation rates.

INTERIOR SOIL VAPOR EXTRACTION SYSTEM
BIODEGRADATION CALCULATIONS

Charbert Facility
Alton, Rhode Island

Biological degradation of PCE based on Oxygen Level in Soil Vapor
January 18, 2008 to January 21, 2009

Well I.D.	Average Flow (CFM)	% Below 21	Mass of O_2 Consumed (lb/Day)	Biodegardation (lb of Hex./Day)
SVE-1	7.3	-0.60	2.85	0.92
SVE-2	7.2	-0.50	2.34	0.75
SVE-3	7.3	-0.60	2.85	0.92
SVE-4	7.2	-0.60	2.81	0.91
SVE-5	6.5	-0.60	2.54	0.82
SVE-6	7.3	-0.60	2.85	0.92
SVE-7	6.8	-0.60	2.65	0.86
SVE-8	7.2	-0.60	2.81	0.91
SVE-9	7.4	-0.60	2.89	0.93
SVE-10	7.3	-0.60	2.85	0.92
SVE-11	7.3	-1.00	4.75	1.53
SVE-12	7.2	-0.80	3.74	1.21
SVE-13	7.4	-0.60	2.89	0.93
SVE-14	7.2	-0.60	2.81	0.91
SVE-15	7.4	-0.60	2.89	0.93
SVE-16	7.3	-0.50	2.37	0.77
SSVW-1	7.2	-0.60	2.81	0.91
SSVW-2	7.2	-0.50	2.34	0.75
SSVW-3	7.3	-0.60	2.85	0.92
SSVW-4	7.2	-0.80	3.74	1.21
SSVW-5	7.2	-0.60	2.81	0.91
SSVW-6	7.2	-0.50	2.34	0.75
SSVW-7	7.4	-0.40	1.92	0.62

Total lbs of Hex. Removed = 21.2
lb of Hex / Day

INTERIOR SOIL VAPOR EXTRACTION SYSTEM
BIODEGRADATION CALCULATIONS

Charbert Facility
Alton, Rhode Island

Soil Vapor Extraction TVOC Mass Removal Rate
January 18, 2008 to January 21, 2009

	SVE-1	SVE-2	SVE-3	SVE-4	SVE-5	SVE-6	SVE-7	SVE-8	SVE-9	SVE-10	SVE-11	SVE-12
Average Combined Venting Flow Rate (CFM) =	7.3	7.2	7.3	7.2	6.5	7.3	6.8	7.2	7.4	7.3	7.3	7.2
Average Combined TVOC Concentration (ppmv) =	2.2	2.4	2.1	2.1	2.9	2.5	2.1	2.6	2.7	2.0	2.5	2.5
Total Vent System Run Time (days) =	368	368	368	368	368	368	368	368	368	368	368	368
Total Volume of Air Treated (ft^3) =	3,868,416	3,815,424	3,868,416	3,815,424	3,444,480	3,868,416	3,603,456	3,815,424	3,921,408	3,868,416	3,868,416	3,815,424
Total Volume of TVOC (ft^3 of TVOC) =	9	9	8	8	10	10	8	10	11	8	10	10
Molecular weight of PCE (g/mole) =	166	166	166	166	166	166	166	166	166	166	166	166
lb / ft^3 of PCE =	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lb's of PCE Removed =	3.9	4.2	3.8	3.7	4.6	4.5	3.5	4.6	4.9	3.6	4.5	4.4
Lbs of PCE / 24-hour daily cycle Removed =	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

	SVE-13	SVE-14	SVE-15	SVE-16	SSVW-1	SSVW-2	SSVW-3	SSVW-4	SSVW-5	SSVW-6	SSVW-7
Average Combined Venting Flow Rate (CFM) =	7.4	7.2	7.4	7.3	7.2	7.2	7.3	7.2	7.2	7.2	7.4
Average Combined TVOC Concentration (ppmv) =	2.3	2.5	2.4	2.5	2.1	1.9	2.5	2.3	2.4	2.9	1.3
Total Vent System Run Time (days) =	368	368	368	368	368	368	368	368	368	368	368
Total Volume of Air Treated (ft^3) =	3,921,408	3,815,424	3,921,408	3,868,416	3,815,424	3,815,424	3,868,416	3,815,424	3,815,424	3,815,424	3,921,408
Total Volume of TVOC (ft^3 of TVOC) =	9	10	9	10	8	7	10	9	9	11	5
Molecular weight of PCE (g/mole) =	166	166	166	166	166	166	166	166	166	112	112
lb / ft^3 of PCE =	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3
Lb's of PCE Removed =	4.2	4.4	4.4	4.5	3.7	3.4	4.5	4.1	4.2	3.5	1.6
Lbs of PCE / 24-hour daily cycle Removed =	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00

TOTAL	
(pounds)	**93**
(pounds/24-hour cycle)	**0.25**

SUMMARY OF INTERIOR SOIL VAPOR EXTRACTION REMOVAL RATES
January 18, 2008 to January 21, 2009

Charbert Facility
Alton, Rhode Island

Summary of PCE Removed by Bio-Venting

		January 18, 2008 through January 21, 2009
Total lbs of PCE Removed by Soil Vapor Extraction		93
Total lbs of PCE (approximated by utilizing biodegradation values for hexane) Removed by Biodegradation Values are based on Carbon Dioxide generated in soil vapor.		5,189
Total lbs of PCE (approximated by utilizing biodegradation values for hexane) Removed by Biodegradation Values are based on depleted oxygen levels observed in soil vapor.		7,802
Average total lbs of PCE removed by biodegradation		6,496
Total lbs of PCE remediated		6,589
Total gallons of PCE remediated		488
Rate of PCE of gasoline Hydrocarbons in #/day	**Vent**	**0.25**
	Biological	**17.7**
	Total	**18.0**

EXTERIOR SOIL VAPOR EXTRACTION SYSTEM
BIODEGRADATION CALCULATIONS

Charbert Facility
Alton, Rhode Island

Biological degradation of PCE based on Carbon Dioxide Levels in Soil Vapor
January 18, 2008 to January 21, 2009

Well I.D.	Average Flow (CFM)	Average O_2 %	Average CO_2 %	% Below 21	Respiration Quot. %
SVE-17	6.0	19.7	0.5	-1.3	38.46
SVE-18	5.3	19.5	0.6	-1.5	40.00
SVE-19	5.4	19.0	1.1	-2.0	55.00
SVE-20	6.1	19.7	0.5	-1.3	38.46
SVE-21	5.3	20.0	0.3	-1.0	30.00
SVE-22	5.9	20.0	0.3	-1.0	30.00
SVE-23	5.8	19.6	0.4	-1.4	28.57
SVE-24	6.0	19.9	0.2	-1.1	18.18
SVE-25	6.0	19.9	0.1	-1.1	9.09
SVE-26	6.0	20.0	0.1	-1.0	10.00
SVE-27	6.0	20.0	0.1	-1.0	10.00
SVE-28	4.4	20.0	0.1	-1.0	10.00
SVE-29	4.6	20.0	0.1	-1.0	10.00
SVE-30	5.1	20.0	0.1	-1.0	10.00

Well I.D.	Mass of CO_2 (lb/day)	Biodegradation (lb of Hex./day)
SVE-17	2.67	1.73
SVE-18	2.83	1.83
SVE-19	5.30	3.42
SVE-20	2.72	1.75
SVE-21	1.42	0.91
SVE-22	1.58	1.02
SVE-23	2.07	1.33
SVE-24	1.07	0.69
SVE-25	0.53	0.35
SVE-26	0.53	0.35
SVE-27	0.53	0.35
SVE-28	0.39	0.25
SVE-29	0.41	0.26
SVE-30	0.45	0.29

Total lb of Hex. Removed = 14.5 lb of Hex. / Day

Notes:

1. The theoretical degradation of hexane = (3.1 lb of CO_2 / 1 lb of Hexane)
2. The calculated value given above, assumes 1.6 lbs of CO_2 are measured when 1 lb of hexane is degraded due to CO_2 use in bacterial cell growth (approximation).
3. Average values for Air flow, CO_2 and O_2 were used for each monitoring well to detremine the biodegradation rates.

EXTERIOR SOIL VAPOR EXTRACTION SYSTEM
BIODEGRADATION CALCULATIONS

Charbert Facility
Alton, Rhode Island

Biological degradation of PCE based on Oxygen Level in Soil Vapor
January 18, 2008 to January 21, 2009

Well I.D.	Average Flow (CFM)	% Below 21	Mass of O_2 Consumed (lb/Day)	Biodegardation (lb of Hex./Day)
SVE-17	6.0	-1.3	5.07	1.64
SVE-18	5.3	-1.5	5.17	1.67
SVE-19	5.4	-2.0	7.02	2.26
SVE-20	6.1	-1.3	5.15	1.66
SVE-21	5.3	-1.0	3.45	1.11
SVE-22	5.9	-1.0	3.84	1.24
SVE-23	5.8	-1.4	5.28	1.70
SVE-24	6.0	-1.1	4.29	1.38
SVE-25	6.0	-1.1	4.29	1.38
SVE-26	6.0	-1.0	3.90	1.26
SVE-27	6.0	-1.0	3.90	1.26
SVE-28	4.4	-1.0	2.86	0.92
SVE-29	4.6	-1.0	2.99	0.96
SVE-30	5.1	-1.0	3.32	1.07

Total lbs of Hex. Removed = 19.5
lb of Hex / Day

EXTERIOR SOIL VAPOR EXTRACTION SYSTEM
BIODEGRADATION CALCULATIONS

Charbert Facility
Alton, Rhode Island

Soil Vapor Extraction TVOC Mass Removal Rate
January 18, 2008 to January 21, 2009

	SVE-17	SVE-18	SVE-19	SVE-20	SVE-21	SVE-22	SVE-23
Average Combined Venting Flow Rate (CFM) =	6.0	5.3	5.4	6.1	5.3	5.9	5.8
Average Combined TVOC Concentration (ppmv) =	4.5	4.1	4.5	2.9	2.1	6.3	3.5
Total Vent System Run Time (days) =	346	346	346	346	346	346	346
Total Volume of Air Treated (ft^3) =	2,989,440	2,640,672	2,690,496	3,039,264	2,640,672	2,939,616	2,889,792
Total Volume of TVOC (ft^3 of TVOC) =	13	11	12	9	6	19	10
Molecular weight of PCE (g/mole) =	166	166	166	166	166	166	166
lb / ft^3 of PCE =	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lb's of PCE Removed =	6.2	5.0	5.6	4.1	2.6	8.6	4.7
Lbs of PCE / 24-hour daily cycle Removed =	0.02	0.01	0.02	0.01	0.01	0.02	0.01

	SVE-24	SVE-25	SVE-26	SVE-27	SVE-28	SVE-29	SVE-30
Average Combined Venting Flow Rate (CFM) =	6.0	6.0	6.0	6.0	4.4	4.6	5.1
Average Combined TVOC Concentration (ppmv) =	3.6	3.0	1.9	1.8	1.8	1.7	1.6
Total Vent System Run Time (days) =	346	346	346	346	346	346	346
Total Volume of Air Treated (ft^3) =	2,989,440	2,989,440	2,989,440	2,989,440	2,192,256	2,291,904	2,541,024
Total Volume of TVOC (ft^3 of TVOC) =	11	9	6	5	4	4	4
Molecular weight of PCE (g/mole) =	166	166	166	166	166	112	112
lb / ft^3 of PCE =	0.5	0.5	0.5	0.5	0.5	0.3	0.3
Lb's of PCE Removed =	5.0	4.2	2.6	2.5	1.8	1.2	1.3
Lbs of PCE / 24-hour daily cycle Removed =	0.01	0.01	0.01	0.01	0.01	0.00	0.00

TOTAL
(pounds) 55
(pounds/24-hour cycle) 0.16

SUMMARY OF EXTERIOR SOIL VAPOR EXTRACTION REMOVAL RATES
January 18, 2008 to January 21, 2009

Charbert Facility
Alton, Rhode Island

Summary of PCE Removed by Bio-Venting

		January 18, 2008 through January 21, 2009
Total lbs of PCE Removed by Soil Vapor Extraction		55
Total lbs of PCE (approximated by utilizing biodegradation values for hexane) Removed by Biodegradation Values are based on Carbon Dioxide generated in soil vapor.		5,017
Total lbs of PCE (approximated by utilizing biodegradation values for hexane) Removed by Biodegradation Values are based on depleted oxygen levels observed in soil vapor.		6,747
Average total lbs of PCE removed by biodegradation		5,882
Total lbs of PCE remediated		5,937
Total gallons of PCE remediated		440
Rate of PCE of gasoline Hydrocarbons in #/day	**Vent**	**0.16**
	Biological	**17.0**
	Total	**17.2**

APPENDIX D

RESIDENTIAL WELL ANALYITICAL SUMMARY

TABLE D-1
WELL WATER ANALYTICAL SUMMARY

14 River Street
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	SAMPLED BY AND DATE					
			RIDEM 6/10/2003	RIDEM 11/18/2003	GZA 11/5/2004	GZA 2/11/2005	GZA 2/01/2008	GZA 2/02/2009
Volitile Organic Compounds								
Methyl Tertiary-Butyl Ether (MTBE)	ug/L	40	6.8	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ug/L	200	ND	4.8	3.7	ND	ND	ND
1,1-Dichloroethene	ug/L	---	ND	0.6	0.5	ND	ND	ND
Cis-1,2-Dichloroethene (Cis-1,2-DCE)	ug/L	70	ND	ND	0.73	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	5	ND	0.8	0.53	ND	ND	ND
Trichloroethene (TCE)	ug/L	5	ND	ND	ND	ND	ND	0.87
Tentatively Identified Compounds								
Volatile TIC's	ug/L	---	NT	NT	ND	ND	ND	ND

Notes:
1. Highlighted results indicate a detected parameter.
2. Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

TABLE D-2
WELL WATER ANALYTICAL SUMMARY

16 River Street
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	SAMPLED BY AND DATE				
			RIDEM 6/10/2003	Clayton 11/12/2003	RIDEM 11/18/2003	Richmond 8/11/2004	GZA 11/5/2004
Volitile Organic Compounds							
1,1,1-Trichloroethane	ug/L	200	ND	2.1	5.3	ND	13
1,1-Dichloroethane	ug/L	---	ND	0.2	ND	0.41	ND
1,1-Dichloroethene	ug/L	---	ND	0.36	0.8	0.95	2.2
Acetone	ug/L	---	ND	2.4	ND	ND	ND
Benzene	ug/L	5	ND	0.98	1.1	ND	1
bis(2-Ethylhexyl)phthalate	ug/L	---	ND	ND	ND	1.7	ND
Cis-1,2-Dichloroethene (Cis-1,2-DCE)	ug/L	70	ND	2.2	2.7	3.1	4.6
2 Chlorotoluene	ug/L	---	ND	ND	ND	ND	0.53
Di-N-Butyl phthalate	ug/L	---	ND	ND	ND	4.2	ND
Tetrachloroethene (PCE)	ug/L	5	ND	0.24	0.8	ND	2.3
Trichloroethene (TCE)	ug/L	5	ND	0.45	0.6	ND	0.73
Tentatively Identified Compounds							
Volatile TIC's	ug/L	---	NT	16.35	NT	NT	1.3

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	SAMPLED BY AND DATE			
			GZA 2/11/2005	GZA 2/01/2008	GZA 9/09/2008	GZA 02/02/09
Volitile Organic Compounds						
1,1,1-Trichloroethane	ug/L	200	ND	5.2	3.3	1.5
1,1-Dichloroethane	ug/L	---	ND	ND	ND	ND
1,1-Dichloroethene	ug/L	---	ND	ND	ND	ND
Acetone	ug/L	---	ND	ND	ND	ND
Benzene	ug/L	5	ND	1.1	ND	ND
bis(2-Ethylhexyl)phthalate	ug/L	---	ND	ND	ND	ND
Cis-1,2-Dichloroethene (Cis-1,2-DCE)	ug/L	70	ND	2.7	1.4	0.66
2 Chlorotoluene	ug/L	---	ND	ND	ND	ND
Di-N-Butyl phthalate	ug/L	---	ND	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	5	ND	1.1	0.7	ND
Trichloroethene (TCE)	ug/L	5	ND	ND	ND	ND
Tentatively Identified Compounds						
Volatile TIC's	ug/L	---	ND	ND	10.4	2.5

Notes:
1. Highlighted results indicate a detected parameter.
2. Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

TABLE D-3
WELL WATER ANALYTICAL SUMMARY

18 River Street
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL	18 River				
			RIDEM 6/10/2003	Clayton 11/12/2003	RIDEM 11/18/2003	Richmond 8/11/2004	GZA 11/5/2004
Volitile Organic Compounds							
bis(2-Ethylhexyl)phthalate	ug/L	---	ND	ND	ND	0.52	ND
Chloroform	ug/L	---	ND	ND	5.6	0.4	0.96
Di-N-Butyl phthalate	ug/L	---	ND	ND	ND	4.9	ND
Tentatively Identified Compounds							
Volatile TIC's	ug/L	---	NT	5.93	NT	NT	4.6

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL				
			GZA 2/11/2005	GZA 2/01/2008	GZA 8/01/2008	GZA 8/01/2008
Volitile Organic Compounds						
bis(2-Ethylhexyl)phthalate	ug/L	---	ND	ND	ND	ND
Chloroform	ug/L	---	ND	ND	ND	ND
Di-N-Butyl phthalate	ug/L	---	ND	ND	ND	ND
Tentatively Identified Compounds						
Volatile TIC's	ug/L	---	ND	ND	ND	1.0*

Notes:
1. Highlighted results indicate a detected parameter.
2. Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

* Compound also detected in trip blank.

TABLE D-1
WELL WATER ANALYTICAL SUMMARY

14 River Street
Alton, Rhode Island

PARAMETERS	UNITS	RIDEM GA Criteria/ FEDERAL MCLs	SAMPLED BY AND DATE					
			RIDEM 6/10/2003	RIDEM 11/18/2003	GZA 11/5/2004	GZA 2/11/2005	GZA 2/01/2008	GZA 2/02/2009
Volitile Organic Compounds								
Methyl Tertiary-Butyl Ether (MTBE)	ug/L	40	6.8	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ug/L	200	ND	4.8	3.7	ND	ND	ND
1,1-Dichloroethene	ug/L	---	ND	0.6	0.5	ND	ND	ND
Cis-1,2-Dichloroethene (Cis-1,2-DCE)	ug/L	70	ND	ND	0.73	ND	ND	ND
Tetrachloroethene (PCE)	ug/L	5	ND	0.8	0.53	ND	ND	ND
Trichloroethene (TCE)	ug/L	5	ND	ND	ND	ND	ND	0.87
Tentatively Identified Compounds								
Volatile TIC's	ug/L	---	NT	NT	ND	ND	ND	ND

Notes:
1. Highlighted results indicate a detected parameter.
2. Highlighted and bold results indicate a detected parameter that exceeds a regulatory limit.

January 2, 2009
File No. 32795.33

Mr. Craig Roy
Senior Environmental Scientist
RI Department of Environmental Management
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908

Re: Fourth Quarter 2008 UIC Monitoring Report
Charbert, Division of N.F.A.
Richmond, Rhode Island
(UIC Order of Approval # 1108)

Dear Mr. Roy:

This letter with attachments serves as the fourth Quarterly UIC Monitoring Report of 2008, in compliance with the above referenced UIC Order of Approval for the Charbert facility located at 299 Church Street in Richmond (Alton), Rhode Island. It was prepared by GZA GeoEnvironmental, Inc., on behalf of our client Charbert, a Division of N.F.A. As you are aware, the Charbert facility stopped production in late February of 2008. Thus, there is no wastewater to sample in the pump house and no wastewater volume to report. This report includes the following information:

- Analytical test results from the six monitoring wells (designated MW-1A, MW-2A, MW-3, MW-4A, MW-5B and MW-6), which were analyzed for total and dissolved chromium, volatile organic compounds (VOCs), the semi-volatile organic compound bis(2-Ethylhexyl) phthalate and total petroleum hydrocarbons (TPH). The detected analytes have been summarized and compared to RIDEM's GA Groundwater Objectives and Groundwater Quality Preventative Action Limits (PALs) in Table 1, attached.
- Disposal system usage and monitoring well maintenance activities are summarized in Table 2.
- Static groundwater elevation measurements and field screening logs for each monitoring well are provided in Attachment A.
- Laboratory Certificates of Analysis are provided in Attachment B.

The groundwater results have been compared to the applicable groundwater standards for Rhode Island and there are no VOC, SVOC, TPH or chromium exceedances. Acetone was detected at a concentration of 140 µg/l in the sample from MW-3. This concentration falls within the historical range for the site. RIDEM has not established a groundwater standard for acetone, so for reference purposes, we compared the findings to the EPA Region 9's preliminary remediation goals (PRGs). The PRG for acetone in drinking water is 610 µg/l, which is greater than the observed level.

We trust that this information fulfills your present needs. If you have any questions please call Stephen Andrus or Edward Summerly at (401) 421-4140.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Angela L. Harvey, E.I.T.
Project Engineer

Stephen Andrus, E.I.T.
Assistant Project Manager

Edward A. Summerly, P.G.
Principal

EAS/ALH:mac

CC: Mary Morgan, Richmond Town Clerk
Clark Memorial Library – Charbert Repository

Attachments: Tables - Table 1 Detected Constituents
Table 2 Lagoon Influent Schedule and Maintenance Schedules
Attachment A - Low Flow Sampling Logs
Attachment B - Laboratory Certificates of Analysis

TABLES

TABLE 1
UIC MONITORING DETECTED CONSTITUENTS
DECEMBER 2008

Charbert Facility
Richmond, Rhode Island

	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	UNITS	MW-1A (GP-29) 12/02/2008		MW-2A 12/02/2008		MW-3 (RIZ-15) 12/02/2008		MW-4A 12/02/2008	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS:											
Acetone	NS	NS	ug/L (ppb)	<	25	<	25	140	25	<	25
SEMI-VOLATILE ORGANICS:											
bis(2-Ethylhexyl)Phthalate	NS	NS	ug/L (ppb)	<	6.0	<	6.0	<	6.0	<	6.0
TOTAL PETROLEUM HYDROCARBONS											
Hydrocarbon Content	NS	NS	ug/L (ppb)	3800	200	8100	200	8000	200	11000	200
TOTAL METALS:											
Chromium	100	50	ug/L (ppb)	23	5	34	5	22	5	23	5
DISSOLVED METALS:											
Chromium	NS	NS	ug/L (ppb)	13	5	10	5	16	5	17	5

PAL = RIDEMs Preventative Action Limit
DETECTED ANALYTES ARE IN BOLD AND HIGHLIGHTED
< = NOT DETECTED
NT = NOT TESTED
NS = NO STANDARD
*Blind duplicate from MW-2A

INDICATES DETECTED CONSTITUANT
INDICATES RIDEM GA EXCEEDANCE
INDICATES RIDEM PAL EXCEEDANCE

TABLE 1
UIC MONITORING DETECTED CONSTITUENTS
DECEMBER 2008

Charbert Facility
Richmond, Rhode Island

	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	UNITS	MW-5B (GP-30) 12/02/2008 Result	MW-5B (GP-30) 12/02/2008 Limit	MW-6 (RIZ-20) 12/02/2008 Result	MW-6 (RIZ-20) 12/02/2008 Limit	GZ-100* 12/02/2008 Result	GZ-100* 12/02/2008 Limit
VOLATILE ORGANICS:									
Acetone	NS	NS	ug/L (ppb)	<	25	<	25	<	25
SEMI-VOLATILE ORGANICS:									
bis(2-Ethylhexyl)Phthalate	NS	NS	ug/L (ppb)	<	6.0	<	6.0	<	6.0
TOTAL PETROLEUM HYDROCARBONS:									
Hydrocarbon Content	NS	NS	ug/L (ppb)	730	200	<	200	4600	200
TOTAL METALS:									
Chromium	100	50	ug/L (ppb)	<	5	6.4	5	35	5
DISSOLVED METALS:									
Chromium	NS	NS	ug/L (ppb)	<	5	5.9	5	11	5

PAL = RIDEMs Preventative Action Limit
DETECTED ANALYTES ARE IN BOLD AND HIGHLIGHTED
< = NOT DETECTED
NT = NOT TESTED
NS = NO STANDARD
*Blind duplicate from MW-2A.

INDICATES DETECTED CONSTITUANT

INDICATES RIDEM GA EXCEEDANCE

INDICATES RIDEM PAL EXCEEDANCE

TABLE 2
UIC MONITORING
LAGOON INFLUENT SCHEDULE AND MAINTENANCE SCHEDULES
SEPTEMBER 2008

Charbert Facility
Richmond, Rhode Island

LAGOON INFLUENT SCHEDULE			
DATE	RECEIVING LAGOON	CHANGED TO LAGOON	REMARKS
March 2008 to March 2009	None	Cessation of Discharge	Facility closed February 24, 2008.
January 2007 to March 2008	1	No Change	All industrial waste water is discharged to Lagoon 1. Lagoon 1 is used as a settling pond, waste water is then transferred by an electric powered pump from Lagoon 1 to Lagoon 2. A second electric powered pump transfers waste water from Lagoon 2 to Lagoon 3.
January 2006 to January 2007	1	No Change	All industrial waste water is discharged to Lagoon 1. Lagoon 1 is used as a settling pond, waste water is then pumped by a electric powered pump from Lagoon 1 to Lagoon 2. A second electric powered pump transfers waste water from Lagoon 2 to Lagoon 3.
December 2005 to January 2006	1	No Change	An electric powered pump was installed to transfer industrial waste water from Lagoon 1 to Lagoon 2. A diesel powered pump transfers waste water from Lagoon 2 to Lagoon 3.

LAGOON MAINTENANCE SCHEDULE		
	Date	Remarks
Lagoon 1		There was no significant lagoon maintenance performed this quarter.
Lagoon 2		There was no significant lagoon maintenance performed this quarter.
Lagoon 3		There was no significant lagoon maintenance performed this quarter.

MONITORING WELL MAINTENANCE		
Well ID	Date	Remarks
MW-1A (GP-29)		Required No Maintenance
MW-2A		Required No Maintenance
MW-3 (RIZ-15)		Required No Maintenance
MW-4A		Required No Maintenance
MW-5B		Required No Maintenance
MW-6 (RIZ-20)		Required No Maintenance

ATTACHMENT A

LOW FLOW SAMPLING LOGS

LOW FLOW GROUNDWATER SAMPLING LOG

Charbert Facility
Richmond, Rhode Island

LOCATION: Charbert
DATE: Tuesday, December 2, 2008
GZA JOB NO: 32795.33
WELL ID: MW-1A (GP-29)
WEATHER: Clear
AIR TEMP (°F): 50
PUMP TYPE: Baller
DATUM: 66.90 TOP OF PVC ELEVATION
SAMPLED BY: EMB
_____ TOP OF CASING ELEVATION

WELL DEPTH (FT): 31.34
LENGTH OF WATER COLUMN (FT): 7.72
WATER DEPTH (FT): 23.62
WELL DIAMETER: 2"
UPPER PRODUCT LAYER (FT): NA
WELL VOLUME: LITERS 4.76
LOWER PRODUCT LAYER (FT): NA

2" WELL = 0.163 GALLONS /FT WATER = 0.617 LITERS/FT
1" WELL = 0.013 GALLONS /FT WATER = 0.0492 LITERS/FT

FLOW RATE CALCULATIONS:
START FLOW _____
VOLUME: _____ Liters
SAMPLE TIME: 14:27
START TIME _____
DELTA TIME (MIN): _____
END TIME _____ Seconds
FLOW RATE: (L/min) _____
MINIMUM PURGE TIME (MINUTES): _____
WELL DRAW DOWN (FT): _____ Flow Depth
VOLUME PURGED (Liters) 14.3
_____ Drawdown

TIME	ORP (mV)	pH (SU)	COND (mS/cm)	TURB (NTU)	DO (mg/L)	TEMP (°C)
14:40	85	5.4	0.876	30.0	7.9	12.8

COLOR: Grey
WELL LOCKED YES X
ODOR: Chemical
NO _____

NOTES: Collected sample with a disposible polyethylene baller.
Sampled for VOCS, SVOCs, TPH, Total RCRA 8, and Dissolved Chromium

GUIDELINES:
TURBIDITY < 5NTU AND +/-10 %
ORP +/- 10 mV
DO 10%
TEMP 3%
SPEC COND 3%
pH +/- 0.10 UNITS

LOW FLOW GROUNDWATER SAMPLING LOG

Charbert Facility
Richmond, Rhode Island

LOCATION:	Charbert	DATE:	Tuesday, December 2, 2008
GZA JOB NO.:	32795.33	WELL ID:	MW-2A
WEATHER:	Clear	AIR TEMP (°F):	50s
PUMP TYPE:	Peristaltic	DATUM:	63.59 TOP OF PVC ELEVATION
SAMPLED BY:	EMB		TOP OF CASING ELEVATION

WELL DEPTH (FT):	19.72	LENGTH OF WATER COLUMN (FT):	4.27
WATER DEPTH (FT):	15.45	WELL DIAMETER:	2"
UPPER PRODUCT LAYER (FT):	NA	WELL VOLUME: LITERS:	2.63
LOWER PRODUCT LAYER (FT):	NA		

2" WELL = 0.163 GALLONS /FT WATER = 0.617 LITERS/FT
1" WELL = 0.013 GALLONS /FT WATER = 0.0492 LITERS/FT

FLOW RATE CALCULATIONS:		START FLOW	10:30
VOLUME:	0.055 Liters	SAMPLE TIME:	12:35
START TIME	0.0	DELTA TIME (MIN):	125
END TIME	10 Seconds	FLOW RATE: (L/min)	0.33
MINIMUM PURGE TIME (MINUTES):	8.0	WELL DRAW DOWN (FT):	17.37 Flow Depth
VOLUME PURGED (Liters)	41.3		1.92 Drawdown

TIME	ORP (mV)	pH (SU)	COND (mS/cm)	TURB (NTU)	DO (mg/L)	TEMP (°C)
11:20	-76	6.6	0.835	119	8.9	11.5
11:30	-81	6.4	0.877	102	4.8	12.9
11:40	-87	6.4	0.885	90	3.9	13.4
11:55	-95	6.6	0.872	134	6.4	12.9
12:10	-97	6.5	0.869	131	3.8	13.1
12:20	-100	6.5	0.857	136	2.6	13.6
12:30	-101	6.5	0.859	133	2.6	13.6
12:32	-101	6.5	0.859	118	2.6	13.6
12:33	-101	6.5	0.860	79	2.6	13.7

COLOR:	Slightly pink	WELL LOCKED	YES
ODOR:	Chemical odor		NO X

NOTES: Sampled for VOCS, SVOCs, TPH, Total RCRA 8, and Dissolved Chromium

Field Duplicate labeled GZ-100

GUIDELINES:
TURBIDITY <5 NTU AND +/-10 %
ORP +/- 10 mV
DO 10%
TEMP 3%
SPEC COND 3%
pH +/- 0.10 UNITS

LOW FLOW GROUNDWATER SAMPLING LOG

Charbert Facility
Richmond, Rhode Island

LOCATION: Charbert
DATE: Tuesday, December 2, 2008
GZA JOB NO.: 32795.33
WELL ID: MW-3 (RIZ-15)
WEATHER: Clear
AIR TEMP (°F): 50
PUMP TYPE: Peristaltic
DATUM: 62.51 TOP OF PVC ELEVATION
SAMPLED BY: EMB
TOP OF CASING ELEVATION

WELL DEPTH (FT): 21.55
LENGTH OF WATER COLUMN (FT): 6
WATER DEPTH (FT): 15.55
WELL DIAMETER: 2"
UPPER PRODUCT LAYER (FT): NA
WELL VOLUME: LITERS 3.70
LOWER PRODUCT LAYER (FT): NA

2" WELL = 0.163 GALLONS /FT WATER = 0.617 LITERS/FT
1" WELL = 0.013 GALLONS /FT WATER = 0.0492 LITERS/FT

FLOW RATE CALCULATIONS:
START FLOW: 6:40
VOLUME: 0.051 Liters
SAMPLE TIME: 10:55
START TIME: 0.0
DELTA TIME (MIN): 135
END TIME: 10 Seconds
FLOW RATE: (L/min) 0.31
MINIMUM PURGE TIME (MINUTES): 12.1
WELL DRAW DOWN (FT): 15.59 Flow Depth
VOLUME PURGED (Liters): 41.3
0.04 Drawdown

TIME	ORP (mV)	pH (SU)	COND (mS/cm)	TURB (NTU)	DO (mg/L)	TEMP (°C)
8:52	-97	6.4	0.456	147	0.5	13.0
9:02	-96	6.4	0.451	0	1.1	13.2
9:13	-94	6.3	0.453	27	3.9	12.4
9:22	-97	6.4	0.447	32	1.3	12.6
9:32	-93	6.4	0.431	29	2.2	12.7
9:42	-96	6.4	0.437	29	1.5	12.9
10:00	-90	6.4	0.470	173	2.1	12.6
10:10	-90	6.4	0.436	220	2.1	12.6
10:30	-96	6.6	0.417	239	2.1	12.5
10:50	-97	6.5	0.433	243	2.0	12.5
10:52	-97	6.5	0.433	220	1.9	12.5
10:53	-97	6.5	0.430	222	1.9	12.5

COLOR: Slightly pink
WELL LOCKED: YES X
ODOR: Faint odor
NO

NOTES: Sampled for VOCS, SVOCs, TPH, Total RCRA 8, and Dissolved Chromium
Turbidity and DO did not stabalize, 2 hour cut off.

GUIDELINES:
TURBIDITY <5 NTU AND +/-10 %
ORP +/- 10 mV
DO 10%
TEMP 3%
SPEC COND 3%
pH +/- 0.10 UNITS

LOW FLOW GROUNDWATER SAMPLING LOG

Charbert Facility
Richmond, Rhode Island

LOCATION: Charbert
DATE: Tuesday, December 2, 2008
GZA JOB NO.: 32795.33
WELL ID: MW-4A
WEATHER: Clear
AIR TEMP (°F): 50
PUMP TYPE: Peristaltic
DATUM: 58.43 TOP OF PVC ELEVATION
SAMPLED BY: EMB
TOP OF CASING ELEVATION

WELL DEPTH (FT): 14.10
WATER DEPTH (FT): 10.74
UPPER PRODUCT LAYER (FT): NA
LOWER PRODUCT LAYER (FT): NA
LENGTH OF WATER COLUMN (FT): 3.36
WELL DIAMETER: 2"
WELL VOLUME: LITERS 2.07

2" WELL = 0.163 GALLONS /FT WATER = 0.617 LITERS/FT
1" WELL = 0.013 GALLONS /FT WATER = 0.0492 LITERS/FT

FLOW RATE CALCULATIONS:
VOLUME: 0.035 Liters
START TIME: 0.0
END TIME: 10 Seconds
MINIMUM PURGE TIME (MINUTES): 9.9
VOLUME PURGED (Liters): 14.7
START FLOW: 10:05
SAMPLE TIME: 11:15
DELTA TIME (MIN): 70
FLOW RATE: (L/min) 0.21
WELL DRAW DOWN (FT): 11.09 Flow Depth
0.35 Drawdown

TIME	ORP (mV)	pH (SU)	COND (mS/cm)	TURB (NTU)	DO (mg/L)	TEMP (°C)
10:16	-137	6.6	0.711	43.0	1.5	13.6
10:25	-153	6.7	0.684	64.0	0.0	13.5
10:50	-139	6.7	0.660	15.0	1.1	14.0
10:55	-148	6.7	0.670	16	0.0	14.1
11:05	-158	6.8	0.700	10	0.0	14.0
11:10	-158	6.8	0.700	4	0.0	14.0
11:12	-158	6.8	0.700	2	0.0	14.0
11:14	-158	6.8	0.700	3	0.0	14.0

COLOR: Slight Pink
ODOR: Chemical
WELL LOCKED YES X
NO

NOTES: Sampled for VOCS, SVOCs, TPH, Total RCRA 8, and Dissolved Chromium

GUIDELINES:
TURBIDITY <5 NTU AND +/-10 %
ORP +/- 10 mV
DO 10%
TEMP 3%
SPEC COND 3%
pH +/- 0.10 UNITS

LOW FLOW GROUNDWATER SAMPLING LOG

Charbert Facility
Richmond, Rhode Island

LOCATION: Charbert
DATE: Tuesday, December 2, 2008
GZA JOB NO.: 32795.33
WELL ID: MW-5B (GP-30)
WEATHER: Clear
AIR TEMP (°F): 50
PUMP TYPE: Peristaltic
DATUM: 63.16 TOP OF PVC ELEVATION
SAMPLED BY: EMB
TOP OF CASING ELEVATION

WELL DEPTH (FT): 22.83
LENGTH OF WATER COLUMN (FT): 9.48
WATER DEPTH (FT): 13.35
WELL DIAMETER: 2"
UPPER PRODUCT LAYER (FT): NA
WELL VOLUME: LITERS 5.85
LOWER PRODUCT LAYER (FT): NA
2" WELL = 0.163 GALLONS /FT WATER = 0.617 LITERS/FT
1" WELL = 0.013 GALLONS /FT WATER = 0.0492 LITERS/FT

FLOW RATE CALCULATIONS:
START FLOW: 13:52
VOLUME: 0.05 Liters
SAMPLE TIME: 14:25
START TIME: 0.0
DELTA TIME (MIN): 53
END TIME: 10 Seconds
FLOW RATE: (L/min) 0.30
MINIMUM PURGE TIME (MINUTES): 19.5
WELL DRAW DOWN (FT): 13.37 Flow Depth
VOLUME PURGED (Liters): 15.9
0.02 Drawdown

TIME	ORP (mV)	pH (SU)	COND (mS/cm)	TURB (NTU)	DO (mg/L)	TEMP (oC)
13:52	-2	7.1	0.052	42	7.7	11.4
14:02	25	6.6	0.047	11	5.5	11.6
14:12	38	6.2	0.046	5.7	5.2	11.5
14:20	38	6.2	0.050	5	5.3	11.6
14:21	39	6.2	0.050	4	5.3	11.6
14:22	39	6.2	0.050	4	5.3	11.6

COLOR: Slight pink
WELL LOCKED: YES X
ODOR: Faint odor
NO

NOTES: Sampled for VOCS, SVOCs, TPH, Total RCRA 8, and Dissolved Chromium

GUIDELINES:
TURBIDITY <5 NTU AND +/-10 %
ORP +/- 10 mV
DO 10%
TEMP 3%
SPEC COND 3%
pH +/- 0.10 UNITS

LOW FLOW GROUNDWATER SAMPLING LOG

Charbert Facility
Richmond, Rhode Island

LOCATION: Charbert
DATE: Tuesday, December 2, 2008
GZA JOB NO.: 32795.33
WELL ID: MW-6 (RIZ-20)
WEATHER: Clear
AIR TEMP (°F): 50
PUMP TYPE: Peristaltic
DATUM: 60.79 TOP OF PVC ELEVATION
SAMPLED BY: EMB
TOP OF CASING ELEVATION

WELL DEPTH (FT): 20.85
LENGTH OF WATER COLUMN (FT): 5.74
WATER DEPTH (FT): 15.11
WELL DIAMETER: 2"
UPPER PRODUCT LAYER (FT): NA
WELL VOLUME: LITERS 3.54
LOWER PRODUCT LAYER (FT): NA

2" WELL = 0.163 GALLONS /FT WATER = 0.617 LITERS/FT
1" WELL = 0.013 GALLONS /FT WATER = 0.0492 LITERS/FT

FLOW RATE CALCULATIONS:
START FLOW: 8:33
VOLUME: 0.45 Liters
SAMPLE TIME: 9:50
START TIME: 0.0
DELTA TIME (MIN): 77
END TIME: 60 Seconds
FLOW RATE: (L/min) 0.45
MINIMUM PURGE TIME (MINUTES): 7.9
WELL DRAW DOWN (FT): 15.5 Flow Depth
VOLUME PURGED (Liters): 34.7
0.39 Drawdown

TIME	ORP (mV)	pH (SU)	COND (mS/cm)	TURB (NTU)	DO (mg/L)	TEMP (°C)
8:45	65	5.7	0.384	64.0	2.3	12.9
8:55	-33	5.9	0.456	121.0	1.5	13.1
9:08	-39	6.0	0.480	49.0	1.2	12.7
9:15	-38	5.9	0.481	66.0	1.2	12.7
9:27	-38	6.0	0.479	32.0	1.1	12.5
9:34	-35	5.9	0.473	55.0	1.0	12.5
9:44	-32	5.9	0.468	2.6	1.1	13.0
9:46	-32	5.9	0.468	4.3	1.1	13.1
9:48	-32	5.9	0.469	1.6	1.1	13.1

COLOR:
WELL LOCKED YES X
ODOR: Chemical
NO

NOTES: Sampled for VOCS, SVOCs, TPH, Total RCRA 8, and Dissolved Chromium

GUIDELINES:
TURBIDITY <5 NTU AND +/- 10 %
ORP +/- 10 mV
DO 10%
TEMP 3%
SPEC COND 3%
pH +/- 0.10 UNITS

ATTACHMENT B

LABORATORY CERTIFICATES OF ANALYSIS

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

Laboratory Identification Numbers:
MA and ME: **MA092** NH: **2028**
CT: **PH0579** RI: **LAO00236**
NELAC - NYS DOH: **11063**

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project No.: **03.0032795.33**
Work Order No.: **0812-00031**
Date Received: **12/04/2008**
Date Reported: **12/15/2008**

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
12/02/2008	Aqueous	0812-00031 001	MW - 1A
12/02/2008	Aqueous	0812-00031 002	MW - 1A / Dissolved Metal
12/02/2008	Aqueous	0812-00031 003	MW - 2A
12/02/2008	Aqueous	0812-00031 004	MW - 2A / Dissolved Metal
12/02/2008	Aqueous	0812-00031 005	MW - 3
12/02/2008	Aqueous	0812-00031 006	MW - 3 / Dissolved Metal
12/02/2008	Aqueous	0812-00031 007	MW - 4A
12/02/2008	Aqueous	0812-00031 008	MW - 4A / Dissolved Metal
12/02/2008	Aqueous	0812-00031 009	MW - 5A
12/02/2008	Aqueous	0812-00031 010	MW - 5A / Dissolved Metal
12/02/2008	Aqueous	0812-00031 011	MW - 6
12/02/2008	Aqueous	0812-00031 012	MW - 6 / Dissolved Metal
12/02/2008	Aqueous	0812-00031 013	GZ - 100
12/02/2008	Aqueous	0812-00031 014	GZ - 100 / Dissolved Metal
12/02/2008	Aqueous	0812-00031 015	TBLK 120208

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.:	**Charbert UIC Quarterly Testing**	Date Received:	**12/04/2008**
Project No.:	**03.0032795.33**	Date Reported:	**12/15/2008**
		Work Order No.:	**0812-00031**

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 12/03/08 via _x_GZA courier, __EC, __FEDEX, or ___hand delivered. The temperature of the __temperature blank/_x_cooler air, was 3.2 & 2.4 degrees C. The temperature requirement for most analyses is above freezing to 6 degrees C. The samples were received intact for all requested analyses.

The chain of custody indicates that the samples, when required, were chemically preserved in accordance with the method they reference.

2. EPA Method 8260 - VOCs

Attach QC 8260 12/08/08 S - Aqueous
Attach QC 8260 12/10/08 S - Aqueous

3. EPA Method 6010B - Metals

Attach QC 6010B 12/10/08 - Aqueous

4. Total Petroleum Hydrocarbons

Estimates of organosiloxane percentage of hydrocarbon content:
Samples MW-1A, MW-2A, MW-3, MW-4A, MW-5A, GZ-100: >75% organosiloxane compounds
Sample MW-6: no hydrocarbon content detected above the reporting limit of 200ug/L

5. EPA Method 8270 - SVOCs

Attach QC 8270 12/08/08 - Aqueous

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ANALYTICAL REPORT

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Stephen Andrus

Project Name.:	**Charbert UIC Quarterly Testing**	Date Received:	**12/04/2008**
Project No.:	**03.0032795.33**	Date Reported:	**12/15/2008**
		Work Order No.:	**0812-00031**

Data Authorized By:

NELAC certification, as indicated by the NELAC Lab ID Number, is per analyte. For a complete list of NELAC validated analytes, please contact the laboratory.

Abbreviations:
% R = % Recovery
DF = Dilution Factor
DFS = Dilution Factor Solids
CF = Calculation Factor
DO = Diluted Out

Method Key:
Method 8260: The current version of the method is 8260B.
Method 8270: The current version of the method is 8270D.
Method 6010: The current version of the method is 6010B.

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

Soil data is reported on a dry weight basis unless otherwise specified.
Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032796.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 1A** Sample No.: **001**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/08/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/08/2008
Acetone	EPA 8260	<25	ug/L	MQS	12/08/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/08/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/08/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/08/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/08/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 1A** Sample No.: **001**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/08/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	89.1	% R	MQS	12/08/2008
***Toluene-D8	EPA 8260	95.5	% R	MQS	12/08/2008
***4-Bromofluorobenzene	EPA 8260	100	% R	MQS	12/08/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/08/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	12/09/2008
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	12/09/2008

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 1A** Sample No.: **001**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogates:	EPA 8270				
***Nitrobenzene-D5	EPA 8270	69.9	% R	CMG	12/09/2008
***2-Fluorobiphenyl	EPA 8270	77.6	% R	CMG	12/09/2008
***P-Terphenyl-D14	EPA 8270	77.1	% R	CMG	12/09/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/08/2008
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	12/11/2008
Hydrocarbon Content		3800	ug/L	RJD	12/11/2008
Surrogate:					
***p-Terphenyl		80.2	% R	RJD	12/11/2008
Extraction	EPA 3510C	10	DF	JMB	12/09/2008
TOTAL METALS					
Chromium	EPA 6010B	0.023	mg/L	LLZ	12/10/2008

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 1A / Dissolved Metal** Sample No.: **002**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
DISSOLVED METALS					
Chromium	EPA 6010B	0.013	mg/L	LLZ	12/10/2008

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 2A** Sample No.: **003**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/08/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/08/2008
Acetone	EPA 8260	<25	ug/L	MQS	12/08/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/08/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/08/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/08/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/08/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 2A** Sample No.: **003**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/08/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	91.9	% R	MQS	12/08/2008
***Toluene-D8	EPA 8260	95.9	% R	MQS	12/08/2008
***4-Bromofluorobenzene	EPA 8260	100	% R	MQS	12/08/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/08/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	12/09/2008
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	12/09/2008

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ANALYTICAL REPORT

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 2A** Sample No.: **003**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogates:	EPA 8270				
***Nitrobenzene-D5	EPA 8270	58.5	% R	CMG	12/09/2008
***2-Fluorobiphenyl	EPA 8270	64.4	% R	CMG	12/09/2008
***P-Terphenyl-D14	EPA 8270	72.9	% R	CMG	12/09/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/08/2008
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	12/11/2008
Hydrocarbon Content		8100	ug/L	RJD	12/11/2008
Surrogate:					
***p-Terphenyl		97.1	% R	RJD	12/11/2008
Extraction	EPA 3510C	10	DF	JMB	12/09/2008
TOTAL METALS					
Chromium	EPA 6010B	0.034	mg/L	LLZ	12/10/2008

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Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 2A / Dissolved Metal** Sample No.: **004**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
DISSOLVED METALS					
Chromium	EPA 6010B	0.010	mg/L	LLZ	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 3** Sample No.: **005**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/08/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/08/2008
Acetone	EPA 8260	140	ug/L	MQS	12/08/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/08/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/08/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/08/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/08/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032796.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 3** Sample No.: **005**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/08/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	92.2	94.1	MQS	12/08/2008
***Toluene-D8	EPA 8260	94.1	% R	MQS	12/08/2008
***4-Bromofluorobenzene	EPA 8260	99.0	% R	MQS	12/08/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/08/2008
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	12/11/2008
Hydrocarbon Content		8000	ug/L	RJD	12/11/2008

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ANALYTICAL REPORT

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 3** Sample No.: **005**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogate:					
***p-Terphenyl		102	% R	RJD	12/11/2008
Extraction	EPA 3510C	10	DF	JMB	12/09/2008
TOTAL METALS					
Chromium	EPA 6010B	0.022	mg/L	LLZ	12/10/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	12/09/2008
ACID FRACTION:	EPA 8270				
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	12/09/2008
Surrogates:	EPA 8270				
***Nitrobenzene-D5	EPA 8270	68.9	% R	CMG	12/09/2008
***2-Fluorobiphenyl	EPA 8270	77.4	% R	CMG	12/09/2008
***P-Terphenyl-D14	EPA 8270	77.9	% R	CMG	12/09/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/08/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 3 / Dissolved Metal** Sample No.: **008**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
DISSOLVED METALS					
Chromium	EPA 6010B	0.016	mg/L	LLZ	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 4A**
Sample No.: **007**
Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/08/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/08/2008
Acetone	EPA 8260	<25	ug/L	MQS	12/08/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/08/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/08/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/08/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/08/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/08/2008

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ANALYTICAL REPORT

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 4A** Sample No.: **007**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/08/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/08/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/08/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/08/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	92.0	% R	MQS	12/08/2008
***Toluene-D8	EPA 8260	94.5	% R	MQS	12/08/2008
***4-Bromofluorobenzene	EPA 8260	99.8	% R	MQS	12/08/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/08/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	12/09/2008
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	12/09/2008

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 4A** Sample No.: **007**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogates:	EPA 8270				
***Nitrobenzene-D5	EPA 8270	57.3	% R	CMG	12/09/2008
***2-Fluorobiphenyl	EPA 8270	63.7	% R	CMG	12/09/2008
***P-Terphenyl-D14	EPA 8270	69.1	% R	CMG	12/09/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/08/2008
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	12/11/2008
Hydrocarbon Content		11000	ug/L	RJD	12/11/2008
Surrogate:					
***p-Terphenyl		123	% R	RJD	12/11/2008
Extraction	EPA 3510C	10	DF	JMB	12/09/2008
TOTAL METALS					
Chromium	EPA 6010B	0.023	mg/L	LLZ	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 4A / Dissolved Metal** Sample No.: **008**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
DISSOLVED METALS					
Chromium	EPA 6010B	0.017	mg/L	LLZ	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 5A**
Sample No.: **009**
Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/10/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/10/2008
Acetone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/10/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/10/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/10/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 5A** Sample No.: **009**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/10/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	89.8	% R	MQS	12/10/2008
***Toluene-D8	EPA 8260	96.2	% R	MQS	12/10/2008
***4-Bromofluorobenzene	EPA 8260	98.8	% R	MQS	12/10/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/10/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	12/09/2008
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	12/09/2008

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ANALYTICAL REPORT

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 5A** Sample No.: **009**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogates:	EPA 8270				
***Nitrobenzene-D5	EPA 8270	43.6	% R	CMG	12/09/2008
***2-Fluorobiphenyl	EPA 8270	48.1	% R	CMG	12/09/2008
***P-Terphenyl-D14	EPA 8270	49.1	% R	CMG	12/09/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/08/2008
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	12/15/2008
Hydrocarbon Content		730	ug/L	RJD	12/15/2008
Surrogate:					
***p-Terphenyl		53.1	% R	RJD	12/15/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/09/2008
TOTAL METALS					
Chromium	EPA 6010B	<0.0050	mg/L	LLZ	12/10/2008

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Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 5A / Dissolved Metal** Sample No.: **010**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
DISSOLVED METALS					
Chromium	EPA 6010B	<0.0050	mg/L	LLZ	12/10/2008

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Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 6**
Sample No.: **011**
Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/10/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/10/2008
Acetone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/10/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/10/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/10/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 6** Sample No.: **011**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/10/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	86.6	% R	MQS	12/10/2008
***Toluene-D8	EPA 8260	96.2	% R	MQS	12/10/2008
***4-Bromofluorobenzene	EPA 8260	96.6	% R	MQS	12/10/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/10/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	12/09/2008
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	12/09/2008

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Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 6** Sample No.: **011**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogates:	EPA 8270				
***Nitrobenzene-D5	EPA 8270	34.4	% R	CMG	12/09/2008
***2-Fluorobiphenyl	EPA 8270	37.9	% R	CMG	12/09/2008
***P-Terphenyl-D14	EPA 8270	43.4	% R	CMG	12/09/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/08/2008
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	12/15/2008
Hydrocarbon Content		<200	ug/L	RJD	12/15/2008
Surrogate:					
***p-Terphenyl		52.5	% R	RJD	12/15/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/09/2008
TOTAL METALS					
Chromium	EPA 6010B	0.0064	mg/L	LLZ	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
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Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **MW - 6 / Dissolved Metal** Sample No.: **012**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
DISSOLVED METALS					
Chromium	EPA 6010B	0.0059	mg/L	LLZ	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **GZ - 100** Sample No.: **013**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/10/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/10/2008
Acetone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/10/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/10/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/10/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008

GZA GeoEnvironmental, Inc.
106 South Street
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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **GZ - 100** Sample No.: **013**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/10/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	88.5	% R	MQS	12/10/2008
***Toluene-D8	EPA 8260	95.6	% R	MQS	12/10/2008
***4-Bromofluorobenzene	EPA 8260	98.7	% R	MQS	12/10/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/10/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	12/09/2008
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	12/09/2008

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Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **GZ - 100** Sample No.: **013**

Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogates:	EPA 8270				
***Nitrobenzene-D5	EPA 8270	73.8	% R	CMG	12/09/2008
***2-Fluorobiphenyl	EPA 8270	78.7	% R	CMG	12/09/2008
***P-Terphenyl-D14	EPA 8270	80.1	% R	CMG	12/09/2008
Extraction	EPA 3510C	1.0	DF	JMB	12/08/2008
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	12/11/2008
Hydrocarbon Content		4600	ug/L	RJD	12/11/2008
Surrogate:					
***p-Terphenyl		106	% R	RJD	12/11/2008
Extraction	EPA 3510C	10	DF	JMB	12/09/2008
TOTAL METALS					
Chromium	EPA 6010B	0.035	mg/L	LLZ	12/10/2008

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Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **GZ - 100 / Dissolved Metal** Sample No.: **014**
Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
DISSOLVED METALS					
Chromium	EPA 6010B	0.011	mg/L	LLZ	12/10/2008

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Stephen Andrus

Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **TBLK 120208**
Sample No.: **015**
Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	12/10/2008
Dichlorodifluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Vinyl Chloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromomethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichlorofluoromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Diethylether	EPA 8260	<5.0	ug/L	MQS	12/10/2008
Acetone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,1-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dichloromethane	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Butanone	EPA 8260	<25	ug/L	MQS	12/10/2008
2,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
cis-1,2-Dichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Chloroform	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrahydrofuran	EPA 8260	<10	ug/L	MQS	12/10/2008
1,1,1-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Carbon Tetrachloride	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Benzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Trichloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromodichloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Dibromomethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Methyl-2-Pentanone	EPA 8260	<25	ug/L	MQS	12/10/2008
cis-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Toluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
trans-1,3-Dichloropropene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,1,2-Trichloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Hexanone	EPA 8260	<25	ug/L	MQS	12/10/2008
1,3-Dichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Tetrachloroethene	EPA 8260	<1.0	ug/L	MQS	12/10/2008

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Project Name.: **Charbert UIC Quarterly Testing**
Project No.: **03.0032795.33**

Date Received: **12/04/2008**
Date Reported: **12/15/2008**
Work Order No.: **0812-00031**

Sample ID: **TBLK 120208**
Sample No.: **015**
Sample Date: **12/02/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
Dibromochloromethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Chlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Ethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
m&p-Xylene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
o-Xylene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Styrene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromoform	EPA 8260	<2.0	ug/L	MQS	12/10/2008
Isopropylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,3-Trichloropropane	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Bromobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
N-Propylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
2-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3,5-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
4-Chlorotoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
tert-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2,4-Trimethylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
sec-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
p-Isopropyltoluene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,3-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,4-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
n-Butylbenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<5.0	ug/L	MQS	12/10/2008
1,2,4-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Hexachlorobutadiene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Naphthalene	EPA 8260	<2.0	ug/L	MQS	12/10/2008
1,2,3-Trichlorobenzene	EPA 8260	<1.0	ug/L	MQS	12/10/2008
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	81.5	% R	MQS	12/10/2008
***Toluene-D8	EPA 8260	96.5	% R	MQS	12/10/2008
***4-Bromofluorobenzene	EPA 8260	97.3	% R	MQS	12/10/2008
Preparation	EPA 5030B	1.0	CF	MQS	12/10/2008

SEA SeaEnvironmental, Inc.
100 South Street
Hopkinton, MA 01748

EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample/Duplicate (LCS/LCSD) Data

Method Blank			Laboratory Control Sample				Laboratory Control Sample Duplicate						
Data Analyzed:	12/6/2000		Data Analyzed:	12/6/2000			12/6/2000						
Volatile Organics	Conc. ug/L	Acceptance Limit	Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verified	% Recovery	Acceptance Limits	Verified	RPD	Limit	Verified
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	110	70-130	ok	113	70-130	ok	1.52	<20	ok
chloromethane	< 1.0	< 1.0	chloromethane	99.1	70-130	ok	99.5	70-130	ok	1.00	<20	ok
vinyl chloride	< 0.5	< 0.5	vinyl chloride	86.2	60-120	ok	93.0	70-130	ok	2.74	<20	ok
bromomethane	< 1.0	< 1.0	bromomethane	85.8	70-130	ok	98.4	70-130	ok	0.14	<20	ok
chloroethane	< 0.5	< 0.5	chloroethane	88.0	70-130	ok	98.8	70-130	ok	1.06	<20	ok
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	103	70-130	ok	102	70-130	ok	0.70	<20	ok
diethyl ether	< 2.5	< 2.5	diethyl ether	83.2	70-130	ok	93.8	70-130	ok	0.45	<20	ok
acetone	< 10	< 10	acetone	101	70-130	ok	104	70-130	ok	3.57	<20	ok
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	94.8	60-120	ok	95.7	70-130	ok	1.05	<20	ok
FREON-113	< 1.0	< 1.0	FREON-113	104	70-130	ok	107	70-130	ok	2.90	<20	ok
iodomethane	< 0.5	< 0.5	iodomethane	89.0	70-130	ok	89.5	70-130	ok	3.06	<20	ok
carbon disulfide	< 5.0	< 5.0	carbon disulfide	93.3	70-130	ok	95.9	70-130	ok	3.03	<20	ok
dichloromethane	< 1.0	< 1.0	dichloromethane	92.0	70-130	ok	93.9	70-130	ok	2.30	<20	ok
tert-butyl alcohol (TBA)	< 10	< 10	tert-butyl alcohol (TBA)	101	70-130	ok	101	70-130	ok	0.10	<20	ok
acrylonitrile	< 0.5	< 0.5	acrylonitrile	99.4	70-130	ok	90.4	70-130	ok	4.34	<20	ok
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	98.2	70-130	ok	94.7	70-130	ok	4.13	<20	ok
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	94.9	70-130	ok	97.2	70-130	ok	2.46	<20	ok
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	92.4	70-130	ok	101	70-130	ok	2.63	<20	ok
di-isopropyl ether (DIPE)	< 1.0	< 1.0	di-isopropyl ether (DIPE)	95.0	70-130	ok	100	70-130	ok	2.23	<20	ok
ethyl tert-butyl ether (ETBE)	< 1.0	< 1.0	ethyl tert-butyl ether (ETBE)	94.4	70-130	ok	98.2	70-130	ok	0.83	<20	ok
vinyl acetate	< 10	< 10	vinyl acetate	98.2	70-130	ok	96.8	70-130	ok	1.62	<20	ok
2-butanone	< 10	< 10	2-butanone	93.4	70-130	ok	96.8	70-130	ok	3.55	<20	ok
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	108	70-130	ok	104	70-130	ok	0.90	<20	ok
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	95.7	70-130	ok	97.8	70-130	ok	2.09	<20	ok
chloroform	< 0.5	< 0.5	chloroform	89.7	60-120	ok	93.8	70-130	ok	2.16	<20	ok
bromochloromethane	< 0.5	< 0.5	bromochloromethane	95.1	70-130	ok	97.9	70-130	ok	2.99	<20	ok
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	101	70-130	ok	103	70-130	ok	1.99	<20	ok
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	99.3	70-130	ok	99.9	70-130	ok	1.30	<20	ok
1,1-dichloropropene	< 0.5	< 0.5	1,1-dichloropropene	98.1	70-130	ok	97.2	70-130	ok	1.13	<20	ok
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	99.1	70-130	ok	100	70-130	ok	1.24	<20	ok
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	96.7	70-130	ok	97.5	70-130	ok	0.84	<20	ok
benzene	< 0.3	< 0.3	benzene	93.8	70-130	ok	95.8	70-130	ok	2.26	<20	ok
tert-amyl methyl ether (TAME)	< 1.0	< 1.0	tert-amyl methyl ether (TAME)	96.4	70-130	ok	97.7	70-130	ok	2.32	<20	ok
trichloroethene	< 0.5	< 0.5	trichloroethene	90.6	70-130	ok	91.9	70-130	ok	2.47	<20	ok
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	89.9	60-120	ok	92.1	70-130	ok	2.43	<20	ok
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	91.6	70-130	ok	93.5	70-130	ok	2.10	<20	ok
1,4-Dioxane	< 50	< 50	1,4-Dioxane	106	70-130	ok	108	70-130	ok	0.14	<20	ok
dibromomethane	< 0.5	< 0.5	dibromomethane	98.5	70-130	ok	101	70-130	ok	4.56	<20	ok
4-methyl-2-pentanone	< 10	< 10	4-methyl-2-pentanone	93.5	70-130	ok	98.4	70-130	ok	3.09	<20	ok
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	98.6	70-130	ok	97.4	70-130	ok	1.97	<20	ok
toluene	< 0.5	< 0.5	toluene	94.7	60-120	ok	98.7	70-130	ok	2.16	<20	ok
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	98.0	70-130	ok	99.9	70-130	ok	1.80	<20	ok
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	102.6	70-130	ok	94.5	70-130	ok	2.01	<20	ok
2-hexanone	< 10	< 10	2-hexanone	97.9	70-130	ok	101	70-130	ok	2.78	<20	ok
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	94.8	70-130	ok	96.4	70-130	ok	1.69	<20	ok
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	106	70-130	ok	109	70-130	ok	3.18	<20	ok
dibromochloromethane	< 0.5	< 0.5	dibromochloromethane	99.7	70-130	ok	104	70-130	ok	3.61	<20	ok
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	97.2	70-130	ok	99.1	70-130	ok	1.88	<20	ok
chlorobenzene	< 0.5	< 0.5	chlorobenzene	98.2	70-130	ok	101	70-130	ok	2.89	<20	ok
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	96.3	70-130	ok	99.8	70-130	ok	4.59	<20	ok
ethylbenzene	< 0.5	< 0.5	ethylbenzene	96.2	60-120	ok	99.9	70-130	ok	1.77	<20	ok
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	96.7	70-130	ok	91.1	70-130	ok	3.99	<20	ok
m&p-xylene	< 1.0	< 1.0	m&p-xylene	98.6	70-130	ok	101	70-130	ok	2.90	<20	ok
o-xylene	< 0.5	< 0.5	o-xylene	99.2	70-130	ok	99.1	70-130	ok	3.06	<20	ok
styrene	< 0.5	< 0.5	styrene	100	70-130	ok	100	70-130	ok	0.01	<20	ok
bromoform	< 1.0	< 1.0	bromoform	104	70-130	ok	102	70-130	ok	2.00	<20	ok
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	107	70-130	ok	110	70-130	ok	1.12	<20	ok
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	94.4	70-130	ok	95.0	70-130	ok	1.14	<20	ok
bromobenzene	< 0.5	< 0.5	bromobenzene	100	70-130	ok	102	70-130	ok	1.48	<20	ok
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	104	70-130	ok	103	70-130	ok	0.97	<20	ok
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	98.7	70-130	ok	100	70-130	ok	0.02	<20	ok
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	101	70-130	ok	101	70-130	ok	3.23	<20	ok
trans-1,4-dichloro-2-butene	< 1.0	< 1.0	trans-1,4-dichloro-2-butene	94.2	70-130	ok	98.3	70-130	ok	0.02	<20	ok
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	103	70-130	ok	102	70-130	ok	2.50	<20	ok
tert-butylbenzene	< 0.5	< 0.5	tert-butylbenzene	110	70-130	ok	110	70-130	ok	0.02	<20	ok
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	96.0	70-130	ok	99.5	70-130	ok	0.23	<20	ok
sec-butylbenzene	< 0.5	< 0.5	sec-butylbenzene	99.4	70-130	ok	99.3	70-130	ok	0.04	<20	ok
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	98.1	70-130	ok	99.5	70-130	ok	0.11	<20	ok
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	99.6	70-130	ok	101	70-130	ok	0.42	<20	ok
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	99.6	70-130	ok	100	70-130	ok	1.44	<20	ok
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	98.5	70-130	ok	99.7	70-130	ok	0.14	<20	ok
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	102	70-130	ok	100	70-130	ok	1.21	<20	ok
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	97.2	70-130	ok	101	70-130	ok	1.79	<20	ok
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	107	70-130	ok	111	70-130	ok	3.72	<20	ok
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	110	70-130	ok	110	70-130	ok	3.90	<20	ok
naphthalene	< 1.0	< 1.0	naphthalene	96.7	70-130	ok	99.8	70-130	ok	3.87	<20	ok
1,2,3-trichlorobenzene	< 0.5	< 0.5	1,2,3-trichlorobenzene	100	70-130	ok	103	70-130	ok	3.42	<20	ok

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verified	Recovery (%)	Acceptance Limits	Verified	RPD	Limit	Verified
DIBROMOFLUOROMETHANE	94.2	70-130	DIBROMOFLUOROMETHANE	97.3	70-130	ok	95.0	70-130	ok	2.43	<20	ok
1,2-DICHLOROETHANE-D4	93.6	70-130	1,2-DICHLOROETHANE-D4	91.7	70-130	ok	91.1	70-130	ok	0.70	<20	ok
TOLUENE-D8	96.7	70-130	TOLUENE-D8	98.4	70-130	ok	98.8	70-130	ok	0.48	<20	ok
4-BROMOFLUOROBENZENE	98.6	70-130	4-BROMOFLUOROBENZENE	104	70-130	ok	104	70-130	ok	0.85	<20	ok
1,2-DICHLOROBENZENE-D4	98.8	70-130	1,2-DICHLOROBENZENE-D4	99.8	70-130	ok	99.0	70-130	ok	0.19	<20	ok

Instrument: HP 6890 "A"

SEA GeoEnvironmental, Inc.
108 South Street
Hopkinton, MA 01748

EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample/Duplicate (LCS/LCSD) Data

Method Blank			Laboratory Control Sample				Laboratory Control Sample Duplicate						
Date Analyzed:	12/16/05		Date Analyzed:	12/16/05			12/16/05						
Volatile Organics	Conc. ug/L	Acceptance Limit	Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verified	% Recovery	Acceptance Limits	Verified	RPD	Limit	Verified
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	120	70-130	ok	105	70-130	ok	1.90	<25	ok
chloromethane	< 1.0	< 1.0	chloromethane	91.9	70-130	ok	92.1	70-130	ok	3.25	<25	ok
vinyl chloride	< 0.5	< 0.5	vinyl chloride	94.1	60-120	ok	90.9	70-120	ok	2.76	<25	ok
bromomethane	< 1.0	< 1.0	bromomethane	91.8	70-130	ok	90.9	70-130	ok	1.13	<25	ok
chloroethane	< 0.5	< 0.5	chloroethane	97.9	70-130	ok	94.9	70-130	ok	3.81	<25	ok
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	97.2	70-130	ok	98.6	70-130	ok	0.59	<25	ok
diethyl ether	< 2.5	< 2.5	diethyl ether	97.5	70-130	ok	98.6	70-130	ok	2.39	<25	ok
acetone	< 10	< 10	acetone	102	70-130	ok	102	70-130	ok	0.30	<25	ok
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	94.9	60-120	ok	91.1	70-130	ok	3.94	<25	ok
FREON-113	< 1.0	< 1.0	FREON-113	105	70-130	ok	101	70-130	ok	3.12	<25	ok
iodomethane	< 0.5	< 0.5	iodomethane	89.1	70-130	ok	84.4	70-130	ok	1.05	<25	ok
carbon disulfide	< 5.0	< 5.0	carbon disulfide	90.9	70-130	ok	92.9	70-130	ok	4.88	<25	ok
dichloromethane	< 1.0	< 1.0	dichloromethane	93.4	70-130	ok	92.9	70-130	ok	0.87	<25	ok
tert-butyl alcohol (TBA)	< 10	< 10	tert-butyl alcohol (TBA)	104	70-130	ok	106	70-130	ok	4.42	<25	ok
acrylonitrile	< 0.5	< 0.5	acrylonitrile	99.5	70-130	ok	99.8	70-130	ok	0.05	<25	ok
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	92.1	70-130	ok	89.9	70-130	ok	1.26	<25	ok
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	92.3	70-130	ok	92.9	70-130	ok	0.31	<25	ok
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	96.6	70-130	ok	95.8	70-130	ok	0.93	<25	ok
di-isopropyl ether (DIPE)	< 1.0	< 1.0	di-isopropyl ether (DIPE)	99.6	70-130	ok	100	70-130	ok	0.39	<25	ok
ethyl tert-butyl ether (ETBE)	< 1.0	< 1.0	ethyl tert-butyl ether (ETBE)	98.5	70-130	ok	96.5	70-130	ok	0.89	<25	ok
vinyl acetate	< 10	< 10	vinyl acetate	97.9	70-130	ok	97.5	70-130	ok	0.62	<25	ok
2-butanone	< 10	< 10	2-butanone	99.9	70-130	ok	99.4	70-130	ok	3.23	<25	ok
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	98.7	70-130	ok	97.6	70-130	ok	1.09	<25	ok
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	95.9	70-130	ok	94.6	70-130	ok	1.39	<25	ok
chloroform	< 0.5	< 0.5	chloroform	97.9	60-120	ok	96.2	70-130	ok	0.40	<25	ok
bromochloromethane	< 0.5	< 0.5	bromochloromethane	97.2	70-130	ok	97.2	70-130	ok	0.00	<25	ok
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	109	70-130	ok	125	70-130	ok	12.3	<25	ok
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	98.1	70-130	ok	98.1	70-130	ok	0.00	<25	ok
1,1-dichloropropene	< 0.5	< 0.5	1,1-dichloropropene	93.5	70-130	ok	92.8	70-130	ok	0.61	<25	ok
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	95.5	70-130	ok	96.4	70-130	ok	0.98	<25	ok
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	98.1	70-130	ok	96.6	70-130	ok	0.47	<25	ok
benzene	< 0.5	< 0.5	benzene	93.5	70-130	ok	92.6	70-130	ok	0.68	<25	ok
tert-amyl methyl ether (TAME)	< 1.0	< 1.0	tert-amyl methyl ether (TAME)	96.3	70-130	ok	95.6	70-130	ok	0.68	<25	ok
trichloroethene	< 0.5	< 0.5	trichloroethene	99.6	70-130	ok	99.7	70-130	ok	0.63	<25	ok
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	90.4	60-120	ok	91.4	70-130	ok	1.11	<25	ok
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	91.6	70-130	ok	93.3	70-130	ok	0.97	<25	ok
1,4-Dioxane	< 50	< 50	1,4-Dioxane	100	70-130	ok	106	70-130	ok	3.58	<25	ok
dibromomethane	< 0.5	< 0.5	dibromomethane	100.0	70-130	ok	102	70-130	ok	1.71	<25	ok
4-methyl-2-pentanone	< 10	< 10	4-methyl-2-pentanone	99.5	70-130	ok	101	70-130	ok	1.42	<25	ok
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	96.5	70-130	ok	96.0	70-130	ok	0.48	<25	ok
toluene	< 0.5	< 0.5	toluene	95.3	60-120	ok	94.2	70-130	ok	0.91	<25	ok
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	92.9	70-130	ok	91.9	70-130	ok	0.81	<25	ok
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	93.6	70-130	ok	92.3	70-130	ok	0.81	<25	ok
2-hexanone	< 10	< 10	2-hexanone	104	70-130	ok	104	70-130	ok	0.07	<25	ok
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	96.9	70-130	ok	95.3	70-130	ok	1.60	<25	ok
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	107	70-130	ok	106	70-130	ok	2.02	<25	ok
dibromochloromethane	< 0.5	< 0.5	dibromochloromethane	100	70-130	ok	101	70-130	ok	1.52	<25	ok
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	99.9	70-130	ok	98.9	70-130	ok	1.30	<25	ok
chlorobenzene	< 0.5	< 0.5	chlorobenzene	99.3	70-130	ok	97.8	70-130	ok	1.01	<25	ok
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	97.2	70-130	ok	96.7	70-130	ok	1.08	<25	ok
ethylbenzene	< 0.5	< 0.5	ethylbenzene	97.6	60-120	ok	95.6	70-130	ok	2.06	<25	ok
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	92.9	70-130	ok	92.1	70-130	ok	0.84	<25	ok
m&p-xylene	< 1.0	< 1.0	m&p-xylene	97.6	70-130	ok	96.9	70-130	ok	1.54	<25	ok
o-xylene	< 0.5	< 0.5	o-xylene	96.9	70-130	ok	96.9	70-130	ok	0.03	<25	ok
styrene	< 0.5	< 0.5	styrene	96.9	70-130	ok	96.5	70-130	ok	1.43	<25	ok
bromoform	< 1.0	< 1.0	bromoform	107	70-130	ok	108	70-130	ok	0.68	<25	ok
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	114	70-130	ok	111	70-130	ok	2.49	<25	ok
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	98.1	70-130	ok	96.2	70-130	ok	1.01	<25	ok
bromobenzene	< 0.5	< 0.5	bromobenzene	99.1	70-130	ok	98.0	70-130	ok	0.08	<25	ok
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	98.8	70-130	ok	98.8	70-130	ok	1.69	<25	ok
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	98.3	70-130	ok	96.2	70-130	ok	1.27	<25	ok
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	99.9	70-130	ok	97.3	70-130	ok	1.85	<25	ok
trans-1,4-dichloro-2-butene	< 1.0	< 1.0	trans-1,4-dichloro-2-butene	99.5	70-130	ok	93.9	70-130	ok	0.94	<25	ok
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	99.9	70-130	ok	97.6	70-130	ok	2.12	<25	ok
tert-butylbenzene	< 0.5	< 0.5	tert-butylbenzene	116	70-130	ok	118	70-130	ok	1.26	<25	ok
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	99.2	70-130	ok	99.4	70-130	ok	0.20	<25	ok
sec-butylbenzene	< 0.5	< 0.5	sec-butylbenzene	99.9	70-130	ok	97.4	70-130	ok	2.66	<25	ok
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	98.9	70-130	ok	98.1	70-130	ok	0.42	<25	ok
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	99.0	70-130	ok	97.9	70-130	ok	0.16	<25	ok
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	99.4	70-130	ok	97.2	70-130	ok	1.81	<25	ok
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	99.8	70-130	ok	98.6	70-130	ok	1.38	<25	ok
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	101	70-130	ok	99.5	70-130	ok	2.47	<25	ok
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	98.8	70-130	ok	98.9	70-130	ok	0.29	<25	ok
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	100	70-130	ok	100	70-130	ok	0.94	<25	ok
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	107	70-130	ok	107	70-130	ok	0.87	<25	ok
naphthalene	< 1.0	< 1.0	naphthalene	98.7	70-130	ok	99.5	70-130	ok	0.10	<25	ok
1,2,3-trichlorobenzene	< 0.5	< 0.5	1,2,3-trichlorobenzene	100	70-130	ok	102	70-130	ok	0.58	<25	ok

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verified	Recovery (%)	Acceptance Limits	Verified	RPD	Limit	Verified
DIBROMOFLUOROMETHANE	94.5	70-130	DIBROMOFLUOROMETHANE	95.9	70-130	ok	94.3	70-130	ok	0.53	<25	ok
1,2-DICHLOROETHANE-D4	96.8	70-130	1,2-DICHLOROETHANE-D4	96.4	70-130	ok	98.4	70-130	ok	1.10	<25	ok
TOLUENE-D8	98.5	70-130	TOLUENE-D8	97.2	70-130	ok	97.3	70-130	ok	0.02	<25	ok
4-BROMOFLUOROBENZENE	97.9	70-130	4-BROMOFLUOROBENZENE	103	70-130	ok	103	70-130	ok	0.03	<25	ok
1,2-DICHLOROBENZENE-D4	99.2	70-130	1,2-DICHLOROBENZENE-D4	99.9	70-130	ok	100	70-130	ok	1.01	<25	ok

Instrument: HP 6890A "B"

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 6010B ANALYSIS
Metals by ICP

QUALITY CONTROL - AQUEOUS

DATE PREPARED: 12/10/2008

QC Sample	Method Blank	Lab Control Sample	LC Duplicate	LCS/LCD Diff.
Units	mg/L	% Recovery	% Recovery	RPD
Acceptance Limits	Results	80-120	80-120	20%
Analyte				
Silver (Ag)	NA	NA	NA	NA
Aluminum (Al)	NA	NA	NA	NA
Arsenic (As)	NA	NA	NA	NA
Boron (B)	NA	NA	NA	NA
Barium (Ba)	NA	NA	NA	NA
Beryllium (Be)	NA	NA	NA	NA
Calcium (Ca)	NA	NA	NA	NA
Cadmium (Cd)	<0.0050	103	101	1.56
Cobalt (Co)	NA	NA	NA	NA
Chromium (Cr)	<0.0050	99.8	98.5	1.39
Copper (Cu)	<0.015	117	114	2.45
Iron (Fe)	NA	NA	NA	NA
Magnesium (Mg)	NA	NA	NA	NA
Manganese (Mn)	NA	NA	NA	NA
Molybdenum (Mo)	NA	NA	NA	NA
Nickel (Ni)	<0.010	103	101	1.58
Lead (Pb)	<0.010	102	100	1.38
Antimony (Sb)	NA	NA	NA	NA
Selenium (Se)	NA	NA	NA	NA
Strontium (Sr)	NA	NA	NA	NA
Titanium (Ti)	NA	NA	NA	NA
Thallium (Tl)	NA	NA	NA	NA
Vanadium (V)	NA	NA	NA	NA
Zinc (Zn)	<0.010	110	107	2.52
Zirconium (Zr)	NA	NA	NA	NA

Matrix Spike / Duplicate Spike performed as per method and reported if assigned on Chain of Custody.

GZA GeoEnvironmental, Inc.
108 South Street
Hopkinton, MA 01748
MA092

EPA Method 8270/625 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Extracted:	**12/04/08**
Date Analyzed:	**12/05/08**
File Name:	**L3530**

Semi-Volatile Organics:	Result	Reporting Limit (ug/L)
naphthalene	ND	2.0
2-methylnaphthalene	ND	2.0
acenaphthylene	ND	2.0
acenaphthene	ND	2.0
fluorene	ND	2.0
phenanthrene	ND	2.0
anthracene	ND	2.0
fluoranthene	ND	2.0
pyrene	ND	2.0
benz [a] anthracene	ND	2.0
chrysene	ND	2.0
bis(2-ethylhexyl)phthalate	ND	10
benzo [b] fluoranthene	ND	2.0
benzo [k] fluoranthene	ND	2.0
benzo [a] pyrene	ND	2.0
indeno [1,2,3-cd] pyrene	ND	2.0
dibenz [a,h] anthracene	ND	2.0
benzo [ghi] perylene	ND	2.0

Surrogates:	Recovery (%)	Acceptance Limits
NITROBENZENE-D5	77.1	39-122
2-FLUOROBIPHENYL	78.4	39-122
p-TERPHENYL-D14	84.8	58-132

GZA GeoEnvironmental, Inc.
100 South Street
Hopkinton, MA 01748
MA002

EPA Method 8270/625 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Laboratory Control Sample

Date Extracted: 12/14/08
Date Analyzed: 12/19/08
File Name: L9031

Laboratory Control Sample Duplicate

Date Extracted: 12/14/08
Date Analyzed: 12/19/08
File Name: L9031

Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict	Relative % Diff	Limits	Verdict
naphthalene	75.3	40-140	ok	75.3	40-140	ok	0.00	<20	ok
2-methylnaphthalene	74.0	40-140	ok	74.0	40-140	ok	0.00	<20	ok
acenaphthylene	84.1	40-140	ok	84.1	40-140	ok	0.00	<20	ok
acenaphthene	78.8	40-140	ok	78.8	30-130	ok	0.00	<20	ok
fluorene	87.0	40-140	ok	87.0	40-140	ok	0.00	<20	ok
phenanthrene	85.5	40-140	ok	85.5	40-140	ok	0.00	<20	ok
anthracene	75.0	40-140	ok	75.0	40-140	ok	0.00	<20	ok
fluoranthene	82.9	40-140	ok	82.9	40-140	ok	0.00	<20	ok
pyrene	82.8	40-140	ok	82.8	40-140	ok	0.00	<20	ok
benz [a] anthracene	82.7	40-140	ok	82.7	40-140	ok	0.00	<20	ok
chrysene	77.4	40-140	ok	77.4	40-140	ok	0.00	<20	ok
bis(2-ethylhexyl)phthalate	88.0	40-140	ok	88.0	40-140	ok	0.00	<20	ok
benzo [b] fluoranthene	75.4	40-140	ok	75.4	40-140	ok	0.00	<20	ok
benzo [k] fluoranthene	90.0	40-140	ok	90.0	40-140	ok	0.00	<20	ok
benzo [a] pyrene	81.5	40-140	ok	81.5	40-140	ok	0.00	<20	ok
indeno [1,2,3-cd] pyrene	81.9	40-140	ok	81.9	40-140	ok	0.00	<20	ok
dibenz [a,h] anthracene	81.2	40-140	ok	81.2	40-141	ok	0.00	<20	ok
benzo [ghi] perylene	79.6	40-140	ok	79.6	40-142	ok	0.00	<20	ok

CAM criteria allows 10% of analytes to exceed criteria.

Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	Relative % Diff	Limits	Verdict
NITROBENZENE-D5	77.3	30-130	ok	77.3	30-130	ok	0.00	<20	ok
2-FLUOROBIPHENYL	78.8	30-130	ok	78.8	30-130	ok	0.00	<20	ok
p-TERPHENYL-D14	86.6	30-130	ok	86.6	30-130	ok	0.00	<20	ok

CHAIN-OF-CUSTODY RECORD

W.O. # 812-00031 (for lab use only)

Sample I.D.	Date/Time Sampled	Matrix (A=Air, S=Soil, GW=Ground W, SW=Surface W, WW=Waste W, DW=Drinking W, P=Product, Other (specify))	ANALYSIS REQUIRED	Total # of Cont.	Note #
MW-1A	12/2/08 1440	GW		7	
MW-2A	1235			7	
MW-3	1055			7	
MW-4A	1115			7	
MW-5A	1425			7	
MW-6	0950			7	
GZ-100	1245			7	
TBLK 120208				3	

PRESERVATIVE (CI - HCl, M-Methanol, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*: cl

CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other)*: V G G

RELINQUISHED BY: (AFFILIATION) DATE/TIME: 12-2-08 1600 — RECEIVED BY: (AFFILIATION) Bill Bierman 12/3/08 1345

RELINQUISHED BY: (AFFILIATION) Bill Bierman 12/3/08 1535 — RECEIVED BY: (AFFILIATION) Walgreen

RELINQUISHED BY: (AFFILIATION) within — RECEIVED BY: (AFFILIATION) 12/4/08 1000

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4° C)
*Specify "Other" preservatives and containers types in this space.

(1) Please analyze and report single SVOC: Bis(2-ethylhexyl)phthalate

(2) All Dissolved chromium were field filtered.

2 Bags QC #1
3 Bags QC #2

PROJECT MANAGER: Steve Andrews EXT. 2740

TURNAROUND TIME: (Standard) Rush ___ Days, Approved by ___

LAB USE: 0820 3 Bags Temp Blank
TEMP. OF COOLER 2.4 °C Cooler Air ✓
#10819 BB 3-2

GZA FILE NO: 03.0032795.33 TASK NO: P.O. NO.

PROJECT CHARBERT UIC

LOCATION Richmond, RI

COLLECTOR(S) Erik Bel

SHEET 1 OF 1

GZA GeoEnvironmental, Inc.
Laboratory Division

108 South Street
Hopkinton, MA 01748
(781) 278-4700
FAX (508) 435-9912

APPENDIX F

FOURTH QUARTER PERIMETER WELL MONITORING RESULTS

GZA
GeoEnvironmental, Inc.

Engineers and Scientists

April 28, 2009
File No. 32795.31

Ms. Joan Taylor
Senior Environmental Scientist
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908

Re: Fourth Quarterly (October-December 2008) Perimeter Well Monitoring Report
Charbert, Division of N.F.A.
Richmond, Rhode Island
RIDEM Case # 99-037

530 Broadway
Providence
Rhode Island
02909
401-421-4140
FAX 401-751-8613
www.gza.net

Dear Ms. Taylor:

This letter with attachments serves as the fourth quarterly Perimeter Well Monitoring Report for the Charbert facility located at 299 Church Street in Richmond (Alton), Rhode Island. It was prepared by GZA GeoEnvironmental, Inc., on behalf of our client Charbert, Division of N.F.A.

In accordance with discussions during the conference call on April 23, 2008 between RIDEM and Charbert, it was agreed that, as part of the environmental monitoring, additional groundwater samples would be collected from perimeter wells located between the Charbert facility and nearby private wells and analyzed for VOCs, see Figure 1, attached. Perimeter monitoring wells included RIZ-1, GP-22, RIZ-21, GZ-1 and RIZ-14. Sample results from these wells were received on 1 May 2008. Based on previous results and the results of the Piezometric Monitoring Report dated May 2, 2008, RIDEM concurred with Charbert's recommendation (received via email 5/9/08) to sample these wells for a total of eight quarters. Following which the need for any future monitoring will be assessed.

Groundwater Sampling

GZA personnel were on site on January 6, 2009 and collected samples from five monitoring wells, RIZ-1, RIZ-14, RIZ-21, GP-22 and GZ-1. Groundwater sampling was performed in general accordance with EPA's July 30, 1996 *Low Stress (low flow) Purging and Sampling Procedure* (Low Flow SOP). Low flow sampling equipment (exclusive of tubing which was dedicated to the wells) was decontaminated prior to use on-site and between each location following EPA's recommend protocols. Water quality monitoring for stabilization was conducted utilizing a Horiba multi-meter in a flow through cell.

Analysis

As agreed upon, groundwater was analyzed for volatile organic compounds (VOCs) via EPA Method 8260B in samples from all five monitoring wells. The detected analytes are summarized and compared to RIDEM's Method 1 GA Groundwater Objectives and Groundwater Quality Preventative Action Limits (PALs) in the attached Table 1. The low flow field screening results are provided in Table 2, attached, and the laboratory certificates of analysis are provided in Attachment A of the first annual ICMP report.

Results

The January 6, 2009 groundwater results have been compared to the applicable groundwater standards for Rhode Island and there was a GA Groundwater objective exceedance for VOCs in one of the five wells. The remaining four wells had no VOCs detected above the method detection limit.

The sample from monitoring well GZ-1 has five VOCs detected with cis-1,2-dichloroethene present at 45 µg/L, (above the PAL of 35 µg/L), and trichloroethene present at 10 µg/L, (above the GA standard of 5 µg/L). The three other detects were 1,2,4-trimethylbenzene at 3.9 µg/L, tetrachloroethene at 2.0 µg/L, and 1,1-dichloroethane at 1.8 µg/L. For reference all previous analytical testing results for the five wells tested on January 6, 2009 are included in Table 1.

At this time, we do not see any significant change in the pattern of migration of contaminants from the previously delineated areas of concern, and no changes in groundwater elevations that would suggest that a deleterious change in contaminant distribution is occurring. The perimeter wells will be sampled and analyzed on a quarterly basis for the next four quarters, after which the need to continue sampling these monitoring wells will be re-evaluated in conjunction with RIDEM.

Please feel free to call Ed or Steve at (401) 421-4140 (or via email at *esummerly@gza.com* or *stephen.andrus@gza.com*) with any questions or comments.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Stephen Andrus, EIT
Assistant Project Manager

Edward A. Summerly, P.G.
Principal

cc: Tracey Nelson Hay, Richmond Town Clerk
Clarks Memorial Library – Charbert Repository

Attachments: Tables - Table 1 - Detected Constituents
Table 2 - Low Flow Field Screening Readings
Figures - Figure 1 - Monitoring Well Locations

J:\ENV\32795-31.sma\Jan 09\PERI WELLS\32795.31 FOURTH QTR PER WELLS.doc

TABLES

TABLE 1
DETECTED CONSTITUENTS SUMMARY

January 2009 Perimeter Wells
Charbert Facility
Richmond, Rhode Island

GZ-1	UNITS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	DATE											
				8/6/2004		2/15/2005		4/25/2008		7/7/2008		10/3/2008		1/6/2009	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS															
1,2,4-Trimethylbenzene	ug/L (ppb)	NS	NS	<	1.0	<	1.0	<	1.0	4.2	1	4.2	1	3.9	1
1,1-Dichloroethane	ug/L (ppb)	---	---	2.2	1.0	2.0	1.0	1.0	1.0	<	1.0	1.5	1.0	1.8	1.0
1,2,3-Trichlorobenzene	ug/L (ppb)	---	---	<	1.0	8.3	1.0	<	1.0	<	1.0	<	1.0	<	1.0
1,2,4-Trichlorobenzene	ug/L (ppb)	70	35	9.5	1.0	<	1.0	3.0	1.0	<	1.0	<	1.0	<	1.0
cis-1,2-Dichloroethene	ug/L (ppb)	70	35	73	1.0	68	1.0	29	1.0	20	1.0	39	1.0	45	1.0
Tetrachloroethene	ug/L (ppb)	5	2.5	2.2	1.0	2.0	1.0	<	1.0	1.2	1.0	1.6	1.0	2.0	1.0
trans-1,2-Dichloroethene	ug/L (ppb)	100	50	<	1.0	1.0	1.0	<	1.0	<	1.0	<	1.0	<	1.0
Trichloroethene	ug/L (ppb)	5	2.5	12	1.0	8.6	1.0	5.0	1.0	4.2	1.0	8.0	1.0	10	1.0
Vinyl Chloride	ug/L (ppb)	2	1	1.1	1.0	1.4	1.0	<	1.0	<	1.0	<	1.0	<	1.0

RIZ-1	UNITS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	DATE											
				01/02//2008		4/1/2008		4/25/2008		7/7/2008		10/3/2008		1/6/2009	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS	ug/L (ppb)			ND		ND		ND		ND		ND		ND	

RIZ-14	UNITS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	DATE							
				4/25/2008		7/7/2008		10/3/2008		1/6/2009	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS											
Tetrachloroethene	ug/L (ppb)	5	2.5	<	1.0	4.4	1.0	ND		ND	

TABLE 1
DETECTED CONSTITUENTS SUMMARY

January 2009 Perimeter Wells
Charbert Facility
Richmond, Rhode Island

RIZ-21	UNITS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	DATE							
				4/25/2008		7/7/2008		10/3/2008		1/6/2009	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS	ug/L (ppb)			ND		ND		ND		ND	

GP-22	UNITS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	DATE									
				2/15/2005		4/25/2008		7/7/2008		10/3/2008		1/6/2009	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS													
Tetrachloroethene	ug/L (ppb)	5	2.5	ND		ND		ND		12	1	ND	

Notes:
1. Cells shaded yellow have results above the method detection limit.
2. Cells shaded green are above RIDEM GA Groundwater Objective.
3. Cells shaded blue are above RIDEM Preventative Action Limit.

TABLE 2
LOW FLOW SCREENING RESULTS

January *2009 Perimeter Wells*
Charbert Facility
Richmond, RI

JANUARY 2009 GROUNDWATER SAMPLING FIELD DATA								
WELL ID	pH	CONDUCTIVITY	TURBIDITY	DISSOLVED OXYGEN	TEMPERATURE	ORP	DEPTH TO GWT	GW ELEV.
	SU	mS/cm	NTU	mg/l	°C	mV	FT	FT
RIZ-1	5.5	0.342	3	5.6	11.3	222	5.0	45.3
RIZ-14	5.9	0.028	2	6.3	8.9	183	NR	NR
RIZ-21	5.5	0.100	1	6.0	9.8	204	10.0	42.8
GZ-1	7.0	0.813	2	0.2	10.9	-34	13.4	43.1
GP-22	6.2	0.549	4	10.1	6.8	205	5.5	43.1

Notes:
1. Field screening parameters were collected using a Horiba Model U-22 Water Quality Monitor.

FIGURES

GENERAL NOTES

1 BASE MAP DEVELOPED FROM ELECTRONIC CAD FILES PROVIDED BY AEROTECH INTERNATIONAL DIGITAL PHOTOGRAMMETRIC MAPPING DATED 12-01-04, DATE FLOWN MARCH 26, 1999. THE TOPOGRAPHY OF THE LAGOONS, THE 1998, 2001 AND 2004 SOIL STOCK PILES WERE UPDATED BY INSTRUMENT SURVEY CONDUCTED BY GZA PERSONNEL IN SEPTEMBER 2004 THROUGH FEBRUARY 2005.

2 THE LOCATIONS AND ELEVATIONS OF MONITORING WELLS AND EXPLORATIONS WERE APPROXIMATELY DETERMINED BY SURVEY. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

INDUSTRIAL WASTE PUMP HOUSE
OIL BUNKER
DRUM STORAGE AREA
FORMER (LAGOON 5)
EXTERIOR SVE/AS AREA
INTERIOR SVE/AS AREA
CHARBERT MILL BUILDING
WETLANDS BOUNDARY
RIVER EDGE
RIVER STREET
CHARBERT EMPLOYEE PARKING LOT
PRIVATE WELL-16 RIVER STREET
PRIVATE WELL-14 RIVER STREET
PRIVATE WELL-18 RIVER STREET
#18
#16
#14
#12
#10

GZ-1
GZ-2
GZ-4A
GZ-6
GZ-7
GZ-8
GZ-21
GZ-22
GZ-23
GZ-3
GZ-ML-2
GZ-ML-3
GP-15
GP-18
GP-19
GP-22
GP-25
GP-26
GP-27A
GP-27B
PT-1
PT-2
PT-4
PT-5
EW-1
EW-2
EW-3
EW-4
CB-9
RIZ-1
RIZ-3
RIZ-6
RIZ-7
RIZ-13
RIZ-14
RIZ-21
PSFM

REV. NO.	DESCRIPTION	BY	DATE

PROJ MGR: SMA
DESIGNED BY: SMA
REVIEWED BY: EAS
OPERATOR: DL
DATE: MAY, 2008

1 INCH = 80 FEET (0, 40, 80, 160)

GZA
GeoEnvironmental, Inc.
Engineers and Scientists
530 BROADWAY
PROVIDENCE, RI 02909
(401) 421-4140
(401) 751-8613

CHARBERT FACILITY
ALTON, RHODE ISLAND

SUPPLEMENTAL GROUNDWATER SAMPLING LOCATIONS

JOB NO. 32795.12

FIGURE NO. 1